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MANUAL ISSUE LEVEL A

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GETTING STARTED

MANUAL STRUCTURE

This manual provides two levels of information for the MS850B/1B/2B user:

1. Information which must be read prior to connecting and operating the system.

This is contained in Sections 1, 2 and 6.

Additionally, 'worked examples' for some commonly used effects and functions are given in Section 5.

2. Information that is not essential reading but which provides a source of reference.

Effects and functions details are contained in Sections 3 and 4.

CONVENTIONS USED

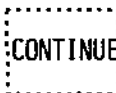
Menus and menu buttons are described using the name that appears on the touch-screen controller.

Highlighted buttons, thus



indicate the function is currently selected.

Buttons shown dotted, thus



indicate that something else must be done before they appear on the touch-screen.

Each function description uses the EFFECTS menu as a starting reference.

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DIGITAL EFFECTS SYSTEMS INSTRUCTION MANUAL

MS850B - SINGLE CHANNEL EFFECTS SYSTEM

**MS851B - SINGLE CHANNEL EFFECTS SYSTEM
WITH BUILT-IN MIXER OPTION**

**MS852B - DUAL CHANNEL EFFECTS SYSTEM
WITH BUILT-IN MIXER OPTION**

Manual No.MAN/083 Issue A November 1990

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WARNINGS AND CAUTIONS



THESE UNITS CONTAIN MAINS VOLTAGES

Never remove any of the covers with the power connected. There can be lethal voltages present. To be safe never remove any covers. If the system does develop a fault contact your CEL Electronics Distributor who will be able to service the unit.

There are no operator adjustments within the unit except sub-carrier phase as detailed in Section 3.



THESE UNITS CONTAIN STATIC SENSITIVE DEVICES

The printed circuit boards in these units are sensitive to damage from static electricity. If it is necessary to remove any of the boards, earthed antistatic mats should be used and personnel must ensure that they are electrically connected to ground.

If this is not done, serious damage may be caused to the unit. Users who do not have these facilities should not remove any printed circuit boards.



SURFACE MOUNT TECHNOLOGY

The printed circuit boards in these units use multi-layer and surface mount techniques. If the system does develop a fault contact your CEL Electronics Distributor who will be able to service the unit.

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1

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1.1 GENERAL

The MS 85xB series of digital effects equipment has three variants:

MS850B - a single channel effects system comprising:

P152B 'Maurice II' Touch-Screen Controller.
P164-38XP Digital Effects Framestore/TBC.

MS851B - a single channel effects system comprising:

P152B 'Maurice II' Touch-Screen Controller.
P164-38XP Digital Effects Framestore/TBC.
P164-B.I.M. Built-In Mixer.

MS852B - a dual channel effects system comprising:

P152B 'Maurice II' Touch-Screen Controller.
P164-38XP Digital Effects Framestore/TBC.
P164-38XP Digital Effects Framestore/TBC.
P164-B.I.M. Built-In Mixer.

1.2 SYSTEM CONFIGURATION

Configure the equipment as per the user requirement.
Suggested equipment layouts are shown in Section 6.

EQUIPMENT DESCRIPTION

1.3 P152B TOUCH-SCREEN CONTROLLER - FRONT

Joystick.

The three-axis joystick enables the picture to be moved anywhere on (or off) the screen and can be assigned to control picture manipulation and effects parameters.

Spinwheel.

Can be assigned to control picture manipulation and effects parameters.

System presets.

Can be assigned to preset effects, picture manipulation and setup parameters.

Take switches.

Go, Runs the last move or sequence, or continues a paused sequence.

Stop, Pauses the currently running move or sequence.
Pressing twice reverses the current sequence.

Go/Stop, Pressed simultaneously and held until the P152B beeps it causes the system to reboot.

T-bars (T1 and T2).

Can be assigned to control picture manipulation and effects parameters.

Floppy disk drive.

The disk drive allows the necessary system software to be loaded and provides a storage facility for sequences, moves and effects.

EQUIPMENT DESCRIPTION

1.4 P152B TOUCH-SCREEN CONTROLLER - REAR

Mains input.

Standard IEC mains connector. See Section 6 for power requirements.

GPI.

General purpose interface BNC connector for pulse input.

Video out.

Auxiliary video output BNC connector, from the touch-screen, monochrome, 625-lines, 50Hz.

Serial port 1 (P148 control).

RS423 serial port, 9-pin D-type, 19,200 baud maximum.
Interface for a P148 unit.

Serial port 2.

RS423 serial port, 9-pin D-type, 19,200 baud maximum.

Serial port 3.

RS423/422 switchable serial port, 9-pin D-type, 38,400 baud maximum. Interface for a P164 unit.

Serial port 4.

RS423/422 switchable serial port, 9-pin D-type, 38,400 baud maximum. Interface for a P164 unit.

Expansion port.

26-way IDC connector, 8-bits plus two handshake lines.

Disc 2.

34-way IDC connector to interface to a second disk drive.

1

EQUIPMENT DESCRIPTION

1.5 P164-38 DIGITAL EFFECTS UNIT - FRONT

Power LED.

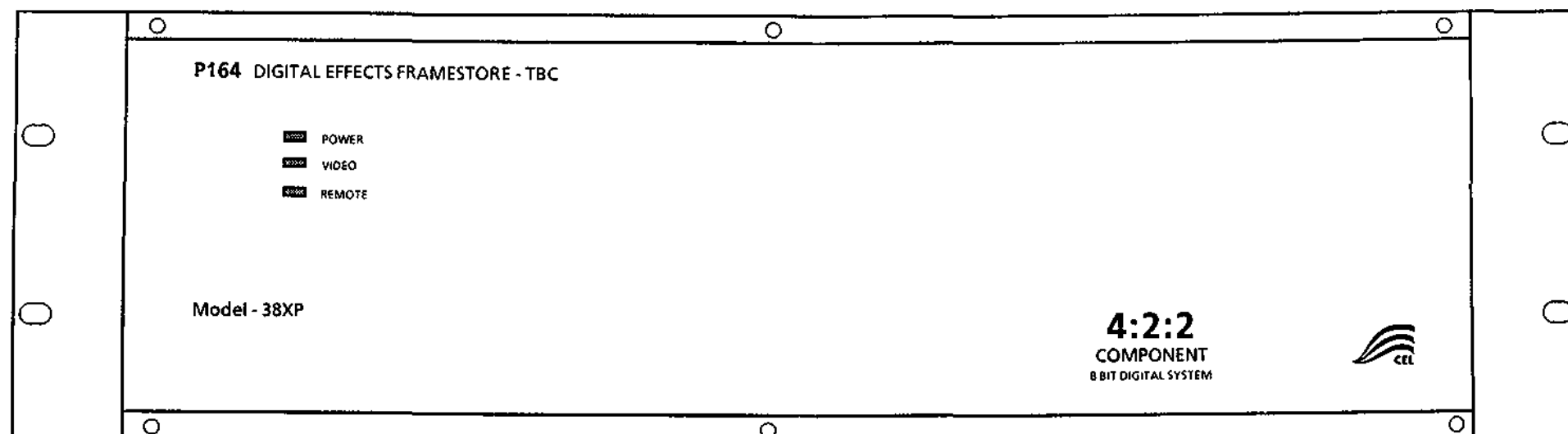
(Red LED) when illuminated indicates mains power is switched on.

Video LED.

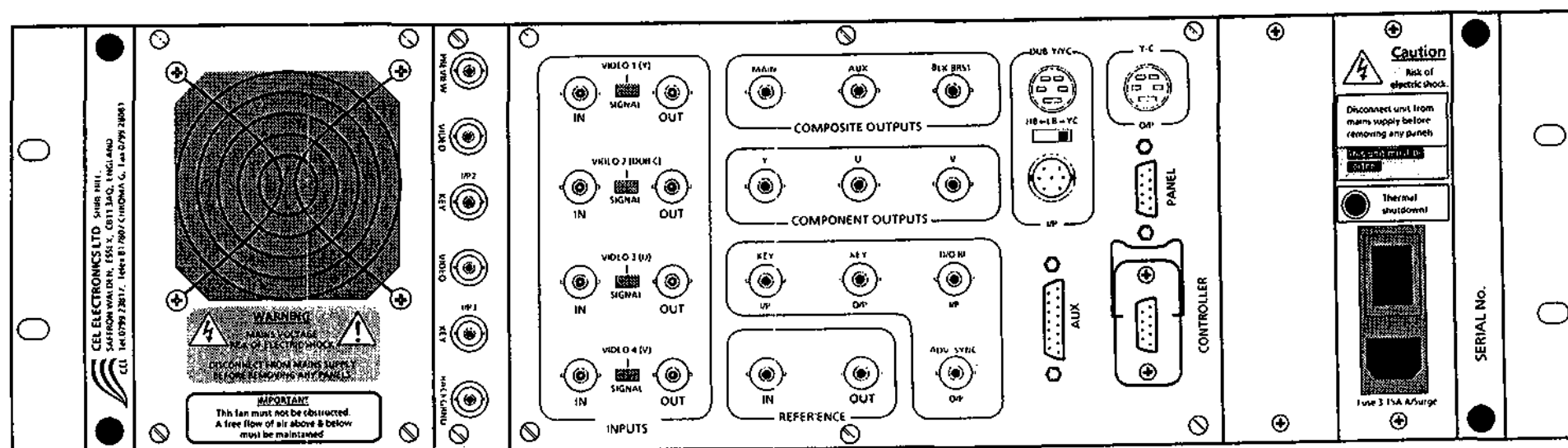
(Yellow LED) when illuminated indicates that a video signal is present at the input.

Remote LED.

(Green LED) when illuminated indicates a remote input has been received from the P152B touch-screen controller.



EQUIPMENT DESCRIPTION



EQUIPMENT DESCRIPTION

1.6 P164-38 DIGITAL EFFECTS UNIT- REAR

1

Composite input (4 off).

1V nominal (loop-through BNC).

Component YUV or YPrPb input.

Y: 1V nominal with sync. (loop through BNC).

U and V: 0.7V peak-to-peak nominal (100%) (loop-through BNC).

DUB Y/C input.

1V nominal luma, 0.3V (burst) chroma into 75 Ω (4/7-pins).

Dub input.

Luma: 0.5V nominal with sync. into 75 Ω high band

/1.8V nominal with sync. into 540 Ω low band (7-pins).

Key input.

0.7V blanked video into 75 Ω or TTL positive-going (BNC).

Dropout input.

RF 0.1V to 1V (BNC) or low TTL pulse.

Auxiliary input.

TTL dropout pulse, dropout RF, DT, Y/C inputs (15-way D-type).

Composite output (2 off).

1V nominal into 75 Ω (BNC).

Component output.

Y: 1V nominal with sync. into 75 Ω (BNC).

U and V: 0.7V peak-to-peak nominal (100%) into 75 Ω (BNC).

Y/C output.

1V nominal luma, 0.3V (burst) chroma into 75 Ω (4-pins).

Black burst output.

0.3V nominal into 75 Ω (BNC).

Key output.

0.7V into 75 Ω positive-going or TTL positive or negative-going (BNC).

Advanced sync. output.

4V nominal negative-going comp. sync. selectable zero or one field advance (BNC).

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SECTION 2

MENUS OVERVIEW

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MENUS OVERVIEW

2.1 GENERAL

There are seven main menus available to the user by pressing the grey MAIN MENU buttons on the touch-screen controller front panel. Sub-menus are available within the main menu structure and give access to other system functions. A menu structure diagram is shown in Fig.1.

2

Each menu has a two level title. The top level indicates the user start point within the main menu loop and the lower level gives the title of the displayed menu or sub-menu page. It is therefore possible for the same menu to have different top level idents; for example the **ASSIGN CONTROLS** menu can be accessed from either the FX or SEQ main menu buttons and will, therefore, have a top level ident of either P164 EFFECTS or SEQUENCES.

Menu loops can be broken at any time and from any position within a loop, by simply pressing the main menu button required.

From initial system start, and reboot, the P152B touch-screen controller loads system files from disk, presents a system introduction page, then displays the P164 EFFECTS - **EFFECTS MENU** page.

The system is now ready for use.

During the startup routine, pressing and holding the STOP TAKE button (when instructed by the on-screen prompt) until the **EFFECTS** menu is displayed, resets the non-volatile memory within the P152B touch-screen controller.

If this reset is performed MS851B and MS852B system users should immediately enter the **SETUP** menu loop and access the **CONFIG** sub-menu to return the system to its correct configuration. All borders, backgrounds input parameters etc will have been lost.

User state stores remain unaffected.

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2.2 SYSTEM INTRODUCTION PAGE

2

WELCOME TO
MAURICE II
THE ART OF IMAGE CONTROL
CEL ELECTRONICS LTD
CHROMA HOUSE SHIRE HILL
SAFFRON WALDEN ESSEX
CB11 3AQ ENGLAND
TEL: +44 799 23817
FAX: +44 799 28081

This menu is displayed at switch on and also after performing a system reboot (with the system disk loaded).

The current version of software is displayed at the bottom right of the touch-screen.

MENUS OVERVIEW

2.3 EFFECTS MENU PAGE

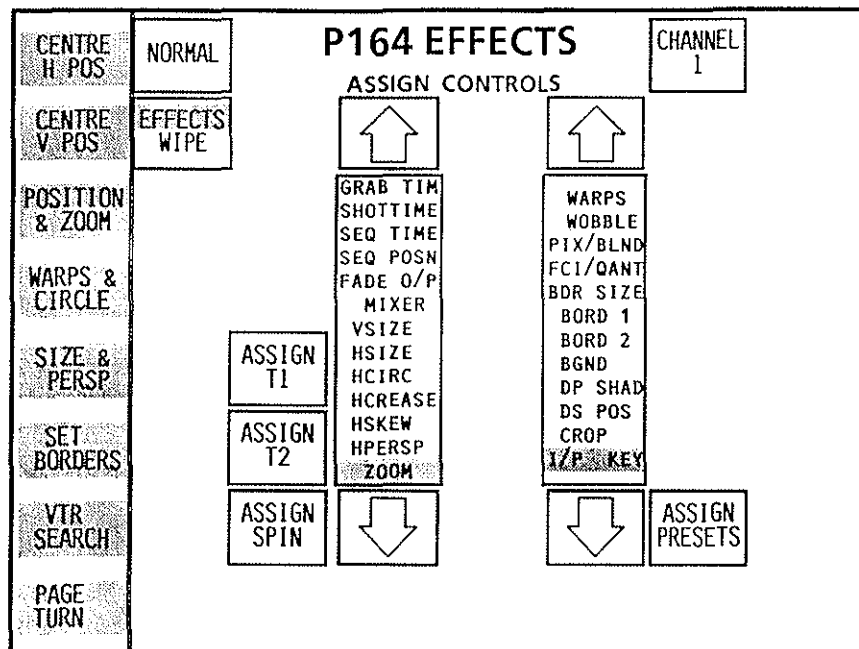
P164 EFFECTS									
EFFECTS MENU									
CHANNEL 1									
NORMAL					EFFECTS WIPE	↑	ZOOM	MOVE NORMAL	
PG TURN OFF	←	×	→		SLIDE	MOVE TO START			
QUADRANT					↓	FOLD			
H INVERT	H MIRROR	FLIP OFF	WOBBLE OFF	FREEZE O/P	USER STATES SEQ MASKS SEQ LIB				
V INVERT	V MIRROR	TUMBLE OFF	PERSP IN TUMBLE	FREEZE I/P					
CHAN 1 GO/STOP				FREEZE BORDER					
SEQ TIME OFF	SEQ TIME 30 Frames HSIZ 100 VSIZ 100 HPOS 0 VPOS 0								

This menu appears on completion of the startup self-test routine. It indicates that the system is ready for use.

The **EFFECTS** menu gives user control over the various sequences, moves and effects contained within the system.

MENUS OVERVIEW

2.4 ASSIGN CONTROLS MENU PAGE



2

The **ASSIGN CONTROLS** menu enables the user to assign the joystick, spinwheel, presets and T-bars of the P152B touch-screen controller to various effects functions.

MENUS OVERVIEW

2.5 INPUT AND BORDERS MENU PAGE

SET H CROPTIME	NORMAL	P164 EFFECTS					CHANNEL 1
SET V CROPTIME		INPUT AND BORDERS					
SET I/P KEY						I/P KEY TTL	
SET DP SHAD		BORD1 OFF	BORD2 OFF	DS OFF		I/P KEY OFF	
SET BORD1							
SET BORD2		BYPASS	VIDEO 1	VIDEO 2	VIDEO 3	VIDEO 4	
SET BGND		TPATT 1	YUV ANALOG	YUV DIGITAL	Y/C DUB	Y/C SVHS	
ENTER		SEQ TIME 30 Frames HSIZ 100 VSIZ 100 HPOS 0 VPOS 0 P164 VSN					

The **INPUT AND BORDERS** menu enables the user to select the required video inputs and to also specify the desired picture crop, background, borders and dropshadow parameters for the input video signal.

MENUS OVERVIEW

2.6 INPUT SETUP MENU PAGE

SET CROP	NORMAL	SETUP INPUT SETUP				CHANNEL 1
SET TIMING						
SET Y/C DELAY	ERR FRZ OFF	DOC FRZ OFF	D.O.C. OFF			
SET LEVELS						
SET COLOUR	Y.A.G.C. OFF	CHROMA + OFF	PAL-S OFF	INPUT FRAME		
SET HUE	625 LINES PAL				ENCRYPT CODE	
SET DROPOUT	AUTO	PAL	SECAM	NTSC 4.43	NTSC 3.58	
SEQ TIME 30 Frames HSIZ 100 VSIZ 100 HPOS 0 VPOS 0						

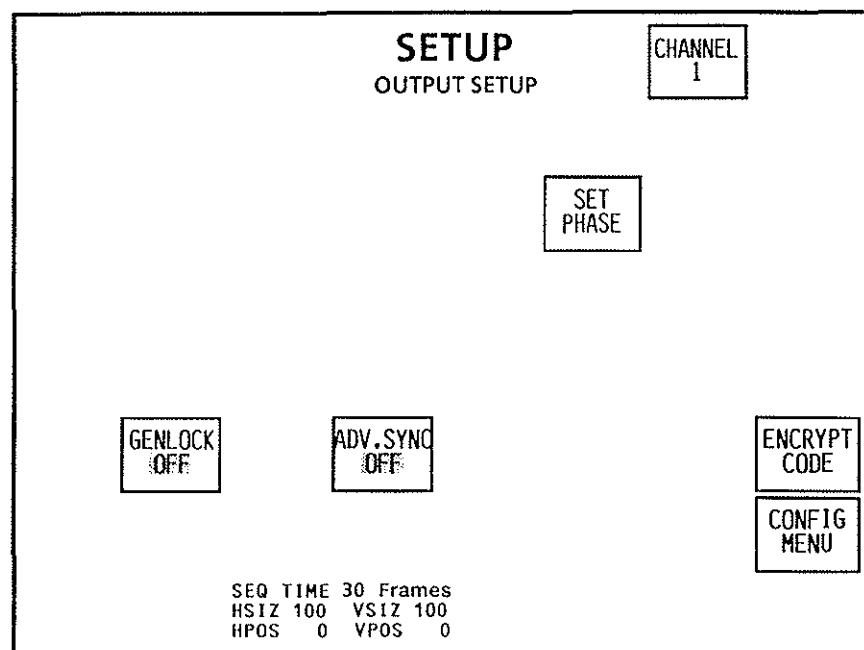
2

The **INPUT SETUP** menu provides the user with the necessary controls to correct the input video, so that signals from different sources appear the same at the output (e.g. timing, hue, Y/C delay etc.).

It also gives access to the **CONFIGURATION** menu.

MENUS OVERVIEW

2.7 OUTPUT SETUP MENU PAGE



The **OUTPUT SETUP** menu provides control over the output of the P164-38. It also gives access to the **CONFIGURATION** menu.

2.8 MIXER CONTROL MENU PAGE

PREVIEW PROGRAM	BIM NORMAL		MIXER CONTROL		CHANNEL 1
PREVIEW CH1	CHANNEL KEY CONTROL				
PREVIEW CH2	CH1 KEY OFF	CH2 KEY OFF	CH3 KEY OFF	T1 MIXER 100	
PREVIEW CH3				LAYER 1 OFF	T2 FADE O/P
PREVIEW BGND VID	MIXER PRIORITY CONTROL			LAYER 2 OFF	
	LAYER 1 CH 1	LAYER 2 CH 2	LAYER 3 CH 3		
PREVIEW KEY1	LAYER 1 FADER	LAYER 2 FADER	LAYER 3 FADER	O/P FADER	LAYER 3 OFF
PREVIEW KEY2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
PREVIEW KEY3	SEQ TIME 30 Frames HSIZ 100 VSIZ 100 HPQS 0 VPOS 0				

2

Only MS851B and MS852B systems have a Built-In Mixer (B.I.M.) card fitted.

The **MIXER CONTROL** menu provides control functions for the mixing and keying facilities for three channels of video and a separate background video source.

MENUS OVERVIEW

2.9 SEQUENCE EDIT MENU PAGE

CENTRE H POS	NORMAL	SEQUENCES SEQUENCE EDIT				CHANNEL 1
CENTRE V POS				FLIP OFF	WOBBLE OFF	
POSITION & ZOOM				TUMBLE OFF	PERSPIN TUMBLE	
WARPS & CIRCLE		RUN SEQ	SHOW CURRENT	PREVIOUS SHOT	NEXT SHOT	
SIZE & PERSP	DELETE SHOT	SEQUENCE SEQ 1				USER STATES
SET BORDERS	GO/STOP ALL	TOTAL SHOTS 0				SEQ MASK
REPLACE SHOT		MOVE INSTANT	MOVE LINEAR	MOVE CURVE		
INSERT SHOT	SHOT TIME	TOTAL TIME 0				
		SHOTTIME 30 Frames				
		HSIZ 100 VSIZ 100				
		HPOS 0 VPOS 0				

The **SEQUENCE EDIT** menu is used to create new sequences and edit sequences as selected in the **EFFECTS** menu or **SEQUENCE LIBRARY** menu.

MENUS OVERVIEW

2.10 USER STATES MENU PAGE

P164 EFFECTS		CHANNELS	ALL CHANNELS
USER STATES		1	
P164 SAVE USER STATES			
USER STATE 1	USER STATE 2	USER STATE 3	USER STATE 4
P164 RECALL USER STATES			
USER STATE 1	USER STATE 2	USER STATE 3	USER STATE 4
FACTORY RESET			
SEQ TIME 30 Frames HSIZ 100 VSIZ 100 HPOS 0 VPOS 0			

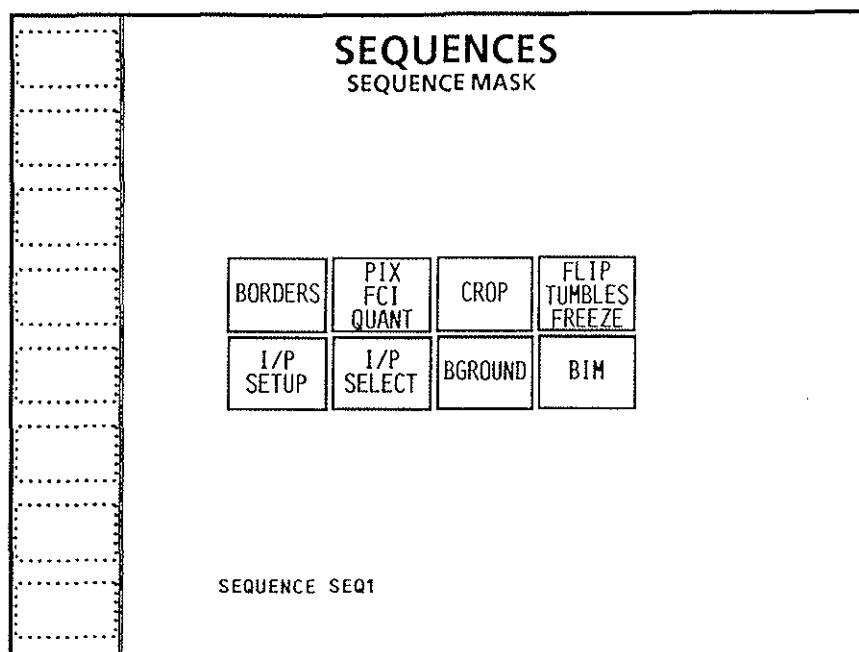
2

The **USER STATES** sub-menu is accessed from the **EFFECTS** menu and **SEQUENCE EDIT** menu. It provides entry to the system state stores for programming and recalling preset system configurations.

It also gives access to the factory reset if required.

MENUS OVERVIEW

2.11 SEQUENCE MASK MENU PAGE



The **SEQUENCE MASK** sub-menu is accessed from the **EFFECTS** menu and the **SEQUENCE EDIT** menu. It allows the user to mask parameters stored when a sequence was created such that the sequence can be run with different effects settings.

2.12 SEQUENCE LIBRARY MENU PAGE

SEQUENCES

SEQ LIBRARY

↑

SEQUENCE DIRECTORY

File	Date
PERSP:AB	01/05/90
VPERS:BA	01/05/90
V-BOX:AB	01/05/90
BOUNCE-A	01/05/90
ANG-SLID	01/05/90
H-BOX:BA	01/05/90
PAGETURN	01/05/90
DROP-BA	01/05/90
HPUSH:AB	01/05/90
HPUSH:BA	01/05/90

↓

REMOVE
SEQ

LOAD
SEQ

SAVE
SEQ

INCLUDE
CONTENTS

DELETE
FILE

SET
FILES

↑

SEQUENCE STORE

Seq name	Shots
No Seq.	0
No Seq.	0
No Seq.	0
No Seq.	0
No Seq.	0
No Seq.	0
No Seq.	0
No Seq.	0
No Seq.	0
SET #	

2

The **SEQUENCE LIBRARY** menu enables the user to load previously programmed sequences from disk and to store newly created sequences onto disk.

It also gives control of the 'cache' of current on-line sequences in the sequence store.

MENUS OVERVIEW

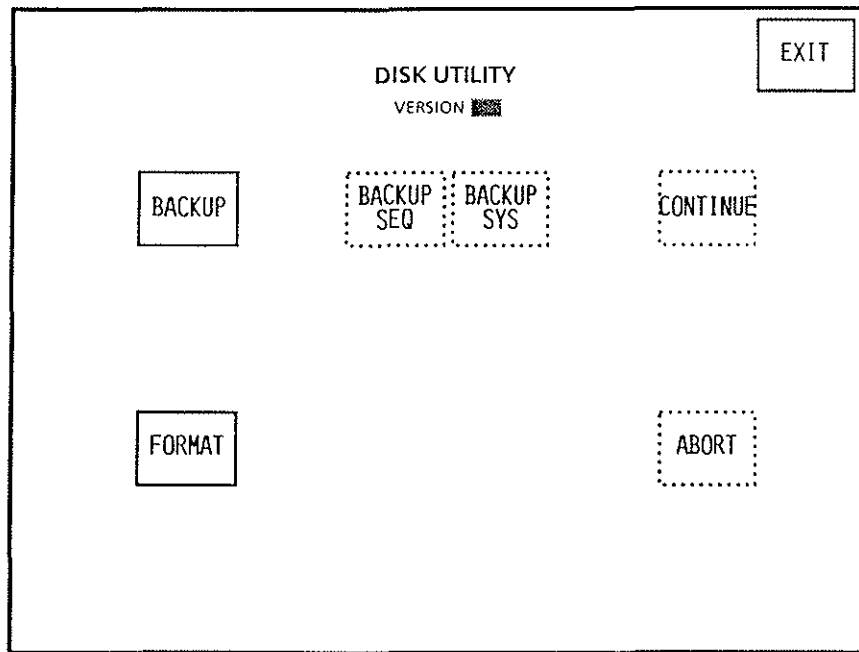
2.13 CONFIGURATION MENU PAGE

SETUP									
CONFIGURATION									
P164 CONFIGURATION									
P164 1 CHAN		B.I.M.		CHANNEL 1		MODEL 38			
								P169 OFF	
ERIC CONFIGURATION									
ERIC		TCODE READER		VIDEO MIXER		SLUG CARD			
						LOAD ALL MENUS		RELOAD SEQS	
JOYSTICK COARSE		SET BRIGHT		SET DATE		SET TIME		GPI OFF	
								CLICK ON	
SYSTEM STATUS									
DISK UTILS									
SEQ TIME 30 Frames 01:42 pm HSIZ 100 VSIZ 100 04:05:90 HPOS 0 VPOS 0									

The **CONFIGURATION** menu is accessed from either the **INPUT SETUP** or **OUTPUT SETUP** menus. It allows the user to configure the effects system for the user environment.

It also gives access to the **DISK UTILS** and **SYSTEM STATUS** menus.

2.14 DISK UTILITY MENU PAGE

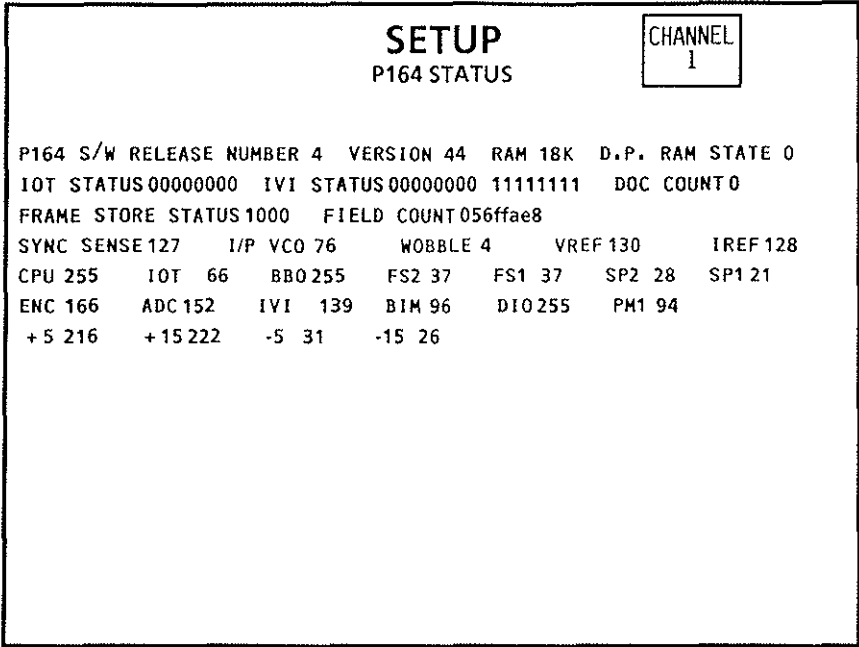


2

The **DISK UTILITY** menu is accessed from the **CONFIG** menu. It allows the user to store sequences, moves and effects on floppy disk and to format and backup disks.

MENUS OVERVIEW

2.15 SYSTEM STATUS PAGE



The **P164 STATUS** menu is accessed from the **CONFIG** menu. It displays P164-38 system information for diagnostic purposes.

The P164 software release number, together with the version number displayed on the first line of the status page, may be required in correspondence with CEL Electronics Ltd.

2.16 KEYBOARD PAGE

0	SEQUENCES							CANCEL
KEYBOARD								
1	2	3	SEQ:NAME				ENTER	
4	5	6					BACK SPACE	
7	8	9						
A	B	C	D	E	F	G	H	
I	J	K	L	M	N	O	P	
Q	R	S	T	U	V	W	X	
Y	Z	/	,	:	!	-	#	

2

The keyboard is displayed when storing sequences, moves or effects on floppy disk.

MENUS OVERVIEW

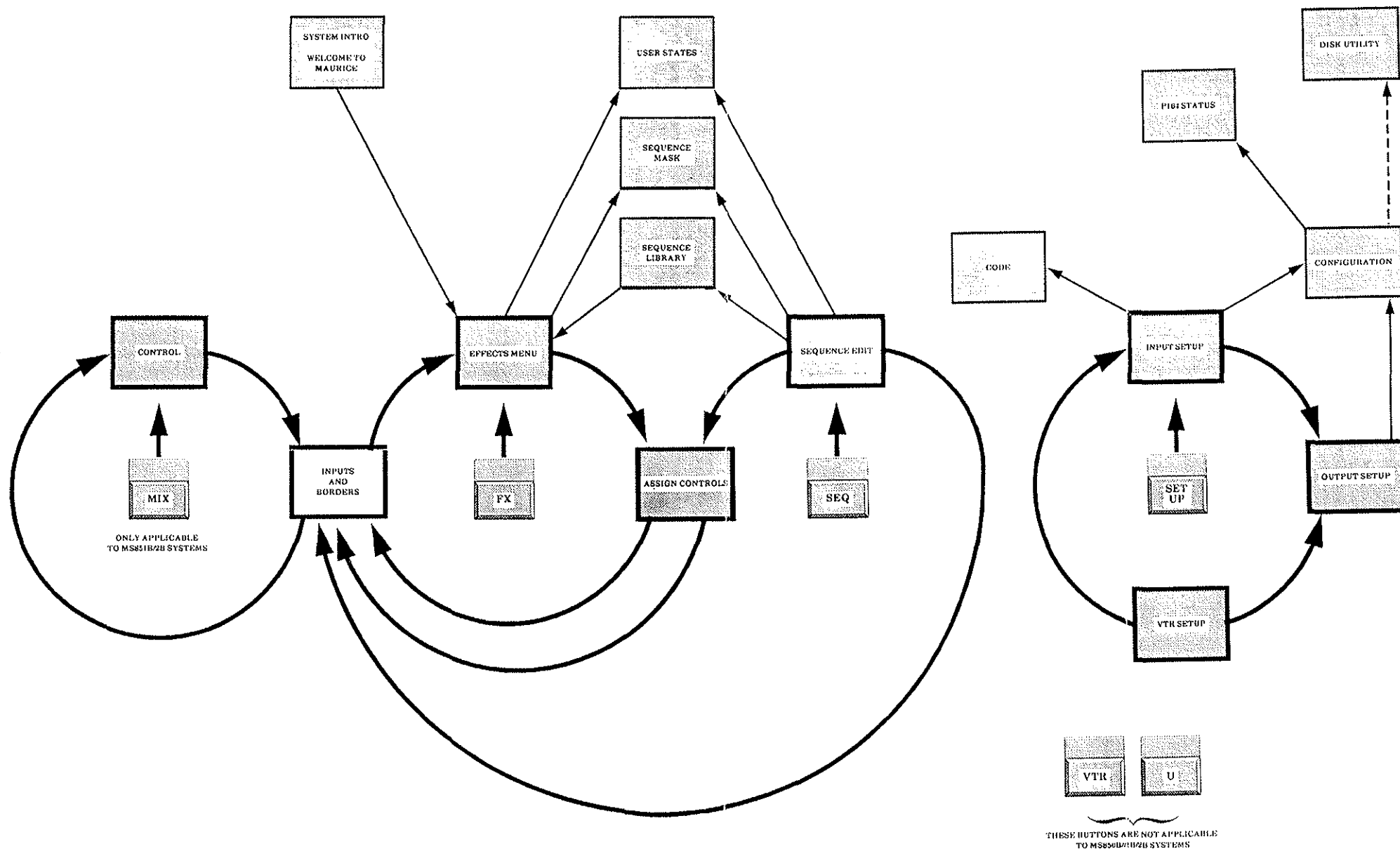
2.17 CODE MENU PAGE

CHANNEL 1	SETUP CODE		ENTER	CANCEL & EXIT
0.				
1	2	3	CLEAR	BACK SPACE
4	5	6		
7	8	9		
0				

The **CODE** menu provides an encryption facility whereby the line structure within a field can be encrypted with a user definable encryption key.

2.18 MENU LOOPS

The menu loops diagram provides a high level overview of the inbuilt software routines.



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3.1 GENERAL

P164 EFFECTS EFFECTS MENU									
	NORMAL					CHANNEL 1			
	EFFECTS WIPE		↑		ZOOM		MOVE NORMAL		
	PG TURN OFF	←	×	→	SLIDE		MOVE TO START		
	QUADRANT		↓		FOLD				
	H INVERT	H MIRROR	FLIP OFF	WOBBLE OFF	FREEZE O/P			USER STATES	
	V INVERT	V MIRROR	TUMBLE OFF	PERSP IN TUMBLE	FREEZE I/P			SEQ MASKS	
	CHAN 1 GO/STOP				FREEZE BORDER			SEQ LIB	
	SEQ TIME OFF	SEQ TIME 30 Frames HSIZ 100 VSIZ 100 HPOS 0 VPOS 0							

3

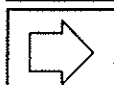
This menu appears on completion of the startup self-test routine. It indicates that the system is ready for use.

The **EFFECTS** menu gives user control over the various sequences, moves and effects contained within the system.

P164 EFFECTS MENU

3.2 MOVEMENT CONTROL

Preprogrammed moves are run using the arrow buttons on the touch-screen:



These buttons dictate the direction of travel of the picture when using the ZOOM, SLIDE or FOLD functions.



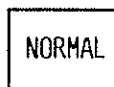
The CENTRE button is only present with ZOOM, and zooms the picture down to zero size, centre screen or up from zero size centre screen to the previous picture size and state.



Moves the picture from its current size, shape and position, to full size centre screen.



Moves the picture to the start position for the current sequence. i.e. the sequence that is highlighted in the sequence store.

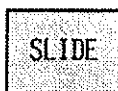


One press reverts the picture in its current form to centre screen.

Two consecutive presses reverts the picture from its current size, shape and position, to full size centre screen.

Note...

Borders, levels and other parameters remain unchanged.



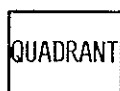
Sets the direction of travel to slide the picture as directed by the arrow buttons.
The shape and size of the picture is not affected by SLIDE.



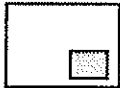
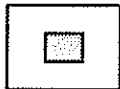
Sets the direction of travel to squash the picture as directed by the arrow buttons.
Zero picture height is at the top or bottom of the screen, picture width remains unchanged. Zero picture width is at the left or right of the screen, picture height remains unchanged.



Sets the zoom move for use with the arrow or centre buttons. Zero picture size is always at the midpoint on the edge of the screen or the centre of the screen as dictated by the arrow or centre buttons.



Enables the user to reduce the picture to approximately 30% full size and place in a preset position on the screen as directed by the quadrant position buttons. The quadrant position and size can then be adjusted using the joystick.



Note...

The arrow buttons become quadrant location buttons for this function.

P164 EFFECTS MENU

3.3 SPEED CONTROL



Enables the user to adjust the time taken for a sequence or move via the spinwheel.

Time is indicated in frames at bottom of the P152B display.

Note...

This spinwheel function reverts to its previous setting on leaving the **EFFECTS** menu.

3.4 ATTRIBUTES OF MOVES

The ZOOM, SLIDE and FOLD moves have attributes that enhance the basic move functions:

3.4.1 FLIP

Has four states, accessed by pressing the button the required number of times:

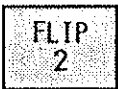


FLIP attribute disabled.

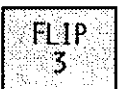
3



Sets the picture to rotate once, about a vertical axis through the centre of the picture, as the move is performed.



Sets the picture to rotate twice, about a vertical axis through the centre of the picture, as the move is performed.



Sets the picture to rotate three times, about a vertical axis through the centre of the picture, as the move is performed.

P164 EFFECTS MENU

3.4.2 TUMBLE

Has four states, accessed by pressing the button the required number of times:

Tumble also has an enhancement called PERSPECTIVE

Note...

At the mid point of a tumble the picture is inverted.



Tumble attribute disabled.



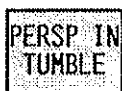
Sets the picture to rotate once, about a horizontal axis, as the move is performed.



Sets the picture to rotate twice, about a horizontal axis, as the move is performed.



Sets the picture to rotate three times about a horizontal axis as the move is performed.



When selected, adds the effect of the image tipping away from the viewer as either TUMBLE 1, TUMBLE 2 or TUMBLE 3 is performed.

3.5 MIRRORS AND INVERSIONS

The mirrors and inversions functions can be used to achieve various effects.

For mirrors, the mirror line is always in the middle of the picture, either horizontally or vertically.

3

A rectangular button with a thin border. Inside, the letter 'H' is centered above the word 'MIRROR'.

Gives a reflection of the left hand half of the picture in the right hand half of the screen. The image is locked to the centre of the screen and cannot be moved left or right with the joystick.

A rectangular button with a thin border. Inside, the letter 'V' is centered above the word 'MIRROR'.

Gives a reflection of the top half of the picture in the bottom half of the screen.

A rectangular button with a thin border. Inside, the letter 'H' is centered above the word 'INVERT'.

Inverts the picture left to right (i.e. a complete mirror image).

A rectangular button with a thin border. Inside, the letter 'V' is centered above the word 'INVERT'.

Inverts the picture top to bottom (i.e. a complete mirror image, but upside down).

P164 EFFECTS MENU

3.6 FREEZE CONTROLS

FREEZE
O/P

Freezes the output from the P164-38 with a field freeze.
No movement of the picture is possible.

FREEZE
I/P

Freezes the input to the P164-38. This function has two further states which are enabled by using the additional FREEZE FRAME/FREEZE FIELD button that appears on the touch-screen.

An input freeze allows image manipulation.

FREEZE
FRAME

A frozen image comprising both fields of the input signal.

FREEZE
FIELD

A frozen field with vertical interpolation between lines to compensate for loss of vertical resolution.

FREEZE
BORDER

Locks the border or borders at the current size and position whilst allowing the picture to be manipulated inside.

Caution...

If the picture is made smaller than the frozen border, uncontrollable images appear in the border area.

3.7 SPECIAL FUNCTIONS

EFFECTS
WIPES

When set to EFFECTS picture manipulation is carried out on the picture information.

EFFECTS
WIPES

When set to WIPES picture manipulation is carried out on the key of the picture only, thus enabling the picture to be wiped using the SLIDE and ZOOM buttons.

PG TURN
OFF

Page turn reassigns the WARPS and CIRCLE functions creating an effect similar to turning the page of a book from bottom right to top left.

PG TURN
ON

Careful setting of border size and colour can create a back to the page if required.

Full details are given in section 5.

WOBBLE
OFF

If the WOBBLE parameters have been set in the **ASSIGN CONTROLS** menu, then the WOBBLE function can be implemented to the current displayed picture.

WOBBLE
ON

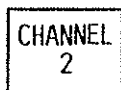
P164 EFFECTS MENU

3.8 OTHER BUTTONS



Shows channel 1 is selected.

In two channel systems, allows either channel 1 or channel 2 to be selected.



Shows channel 2 is selected.

In two channel systems allows either channel 1 or channel 2 to be selected.



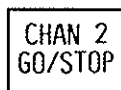
Enables the take switches to repeat the last performed move or sequence for channel 1.



Prevents the take switches from repeating the last performed move or sequence for channel 1.

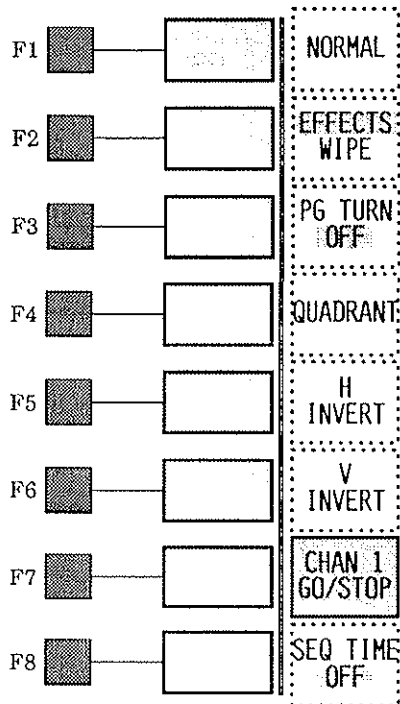


Enables the take switches to repeat the last performed move or sequence for channel 2 (two channel systems only).



Prevents the take switches from repeating the last performed move or sequence for channel 2 (two channel systems only).

3.9 USER-PROGRAMMED SEQUENCE BUTTONS



3

This area of the touch-screen is reserved for up to eight user programmed sequences. Each sequence can then be replayed by simply touching the appropriate button.

P164 EFFECTS MENU

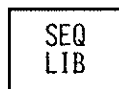
3.10 MENU BUTTONS



Takes the user into the **USER STATES** menu



Takes the user into the **SEQUENCE MASK** menu.



Takes the user into the **SEQUENCE LIBRARY** menu.

3.11 DISPLAYS

SEQ TIME 30 FRAMES

Current time set to complete a move or sequence.

HSIZ 100 VSIZ 100

Current size of the picture, 100:100 is normal picture size.

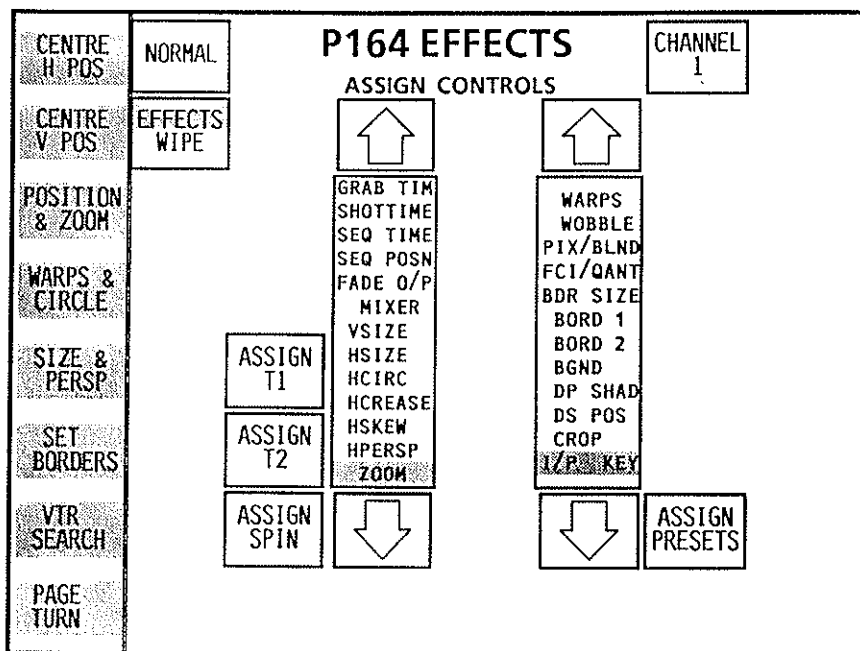
HPOS 0 VPOS 0

Current position of the picture, 0:0 is centre screen.

SEQUENCE PERSP:AB

Shows the current sequence, i.e. the sequence that will be performed when the *TAKE* switches are pressed.

3.12 GENERAL



The **ASSIGN CONTROLS** menu enables the user to assign the joystick, spinwheel, presets and T-bars of the P152B touch-screen controller to various effects functions.

Once assigned, controls will continue to have the same function, even if other menus are accessed. If the controls are temporarily assigned to a different function, in the **INPUT AND BORDERS** menu for example, the original assignment is restored once the temporary assignment is cancelled.

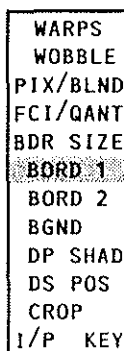
ASSIGN CONTROLS MENU

3.13 ASSIGN PRESETS

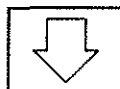
The three presets, S1, S2 and S3 to the right of the touch-screen can be assigned to one of the effects functions listed in the ASSIGN PRESETS sub-menu. Selection of the effect is made using the UP ARROW or DOWN ARROW buttons as necessary.



Moves the selection cursor up the sub-menu. When it reaches the top the cursor wraps around to the bottom.



ASSIGN PRESETS sub-menu

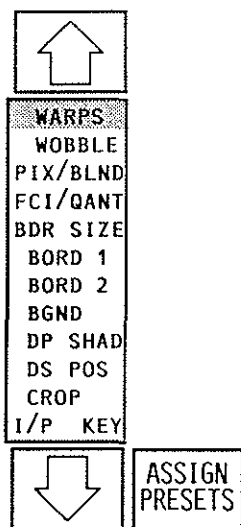


Moves the selection cursor down the sub-menu. When it reaches the bottom the cursor wraps around to the top.



Enables and disables the ASSIGN PRESETS sub-menu selection.

3.14 WARPS



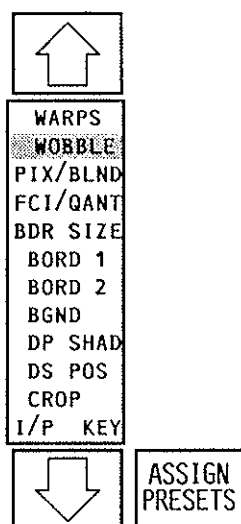
S₁ ● HORIZONTAL PERSPECTIVE
Maintains the middle horizontal size of the picture, and varies the top to bottom horizontal size giving the effect of one dimensional perspective, over the range -100 to 100.

S₂ ● HORIZONTAL SKEW
Changes the angle of all vertical lines. Horizontal lines remain unaffected.
Display range -100 to 100.

S₃ ● HORIZONTAL CREASE
Maintains the horizontal size of the top and bottom of the picture and changes the middle horizontal size, over the range -100 to 100.

ASSIGN CONTROLS MENU

3.15 WOBBLE

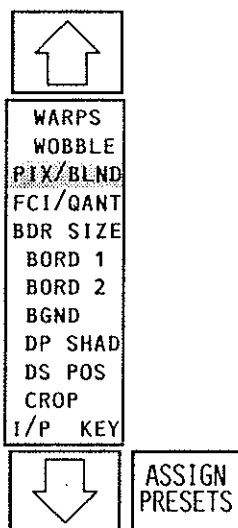


- S₁ ● **WOBBLE F**
Wobble frequency causes the left and right hand sides of the picture to become wavy. Clockwise rotation of the control increases the number of waves up to a maximum of 8. Display range 0 to 100.
- S₂ ● **WOBBLE A**
Wobble amplitude causes the waves set using S₁ to become larger. Values for S₂ are either positive or negative. -100 is the same amplitude as +100 but the wave is phase shifted by 180°. Display range -100 to 100.
- S₃ ● **WPHASE**
Has three effects upon the set waves. Values 1 to 100 introduces a phase shift in the wave. Values -1 to -50 increases the oscillation of the wave to produce an apparent upwards movement. Values -51 to -100 increases the oscillation of the wave to produce an apparent downward movement.

Note...

If S₁ and S₂ are both 0 no effect will be seen.

3.16 PIXELLATION AND BLINDS



S₁ ●

PIXELLATION

Pixellates the picture in squares.

Note...

Pixellation is performed at the output of the P164-38, thus using zoom does not affect the size of the displayed pixel.

S₂ ●

BLINDS

Creates a venetian blind effect and moves alternate bands of the picture left and right, when used with SLIDE or FOLD from the **EFFECTS** menu.

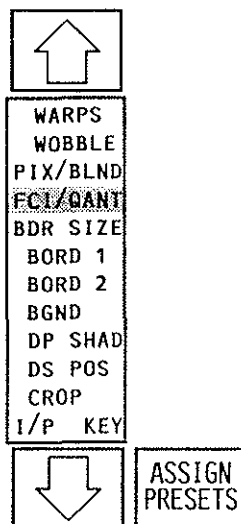
A minimum of two blinds can be set.

Note...

To see the blinds when setting up the effect, the picture must be set off centre using the joystick. After the effect has been set up the picture can be returned to a central position if required.

ASSIGN CONTROLS MENU

3.17 FALSE COLOUR IMAGING AND QUANTISATION



S₁ ●

FCI

False colour imaging substitutes specific colours to replace the picture luminance information:

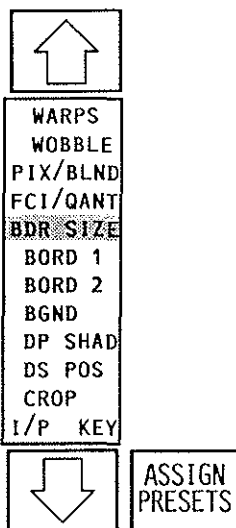
- 0 Normal colours.
- 1 Greens and purples.
- 2 Yellows, greens and purples.
- 3 Subdued greens and sepia.
- 4 Blues.
- 5 Purples and yellows.
- 6 Purples and greens.
- 7 Yellows and purples.
- 8-15 Monochrome (greyscale).

S₂ ●

QUANT

Quantisation, sometimes referred to as *solarisation* or *posterisation* gives a banding of contrast levels.
Colour is unchanged.

3.18 BORDER SIZE



S₁ ●

BORDER 1

Adjusts the size of the outer border around the picture.

Note...

For values 0 to 34 the border size remains constant when zooming.

For values 35 to 100 the border size is proportional to the vertical height of the picture.

S₂ ●

BORDER 2

Adjusts the size of the inner border around the picture.

Note...

For values 0 to 34 the border size remains constant when zooming.

For values 35 to 100 the border size is proportional to the vertical height of the picture.

ASSIGN CONTROLS MENU

3.19 BORDER 1 (outer border)



WARPS
WOBBLE
PIX/BLND
FCI/QANT
BDR SIZE
BORD 1
BORD 2
BGND
DP SHAD
DS POS
CROP
I/P KEY



ASSIGN
PRESETS

S₁ ● BD1 LUM
Sets the luminance level for border 1.

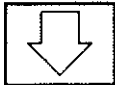
S₂ ● BD1 HUE
Sets the colour of border 1.

S₃ ● BD1 SAT
Sets the saturation for the border 1 colour.

3.20 BORDER 2 (inner border)



WARPS
WOBBLE
PIX/BLND
FCI/QANT
BDR SIZE
BORD 1
BORD 2
BGND
DP SHAD
DS POS
CROP
I/P KEY



ASSIGN
PRESETS

S₁ ● BD2 LUM
Sets the luminance level for
border 2.

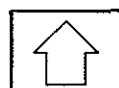
S₂ ● BD2 HUE
Sets the colour of border 2.

S₃ ● BD2 SAT
Sets the saturation for the
border 2 colour.

3

ASSIGN CONTROLS MENU

3.21 BACKGROUND



WARPS
WOBBLE
PIX/BLND
FCI/QANT
BDR SIZE
BORD 1
BORD 2
BGND
DP SHAD
DS POS
CROP
I/P KEY



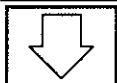
ASSIGN
PRESETS

- S₁ ● BGND LUM
Sets the background luminance level.
- S₂ ● BGND HUE
Sets the background colour.
- S₃ ● BGND SAT
Sets the background colour saturation.

3.22 DROPSHADOW



WARPS
WOBBLE
PIX/BLND
FCI/QANT
BDR SIZE
BORD 1
BORD 2
BGND
DP SHAD
DS POS
CROP
I/P KEY



ASSIGN
PRESETS

S₁ ● DPS LUM
Sets the dropshadow luminance level.

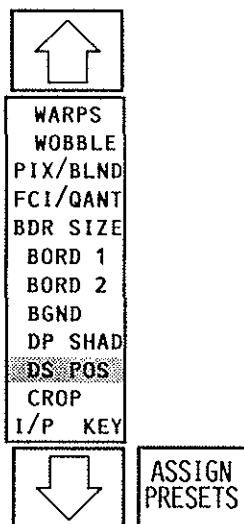
S₂ ● DPS HUE
Sets the dropshadow colour.

S₃ ● DPS SAT
Sets the saturation for the dropshadow colour.

3

ASSIGN CONTROLS MENU

3.23 DROPSHADOW POSITION



S₁ ● DS HPOS
Sets the horizontal position for the dropshadow.

S₂ ● DS VPOS
Sets the dropshadow vertical position below the picture.

Note...

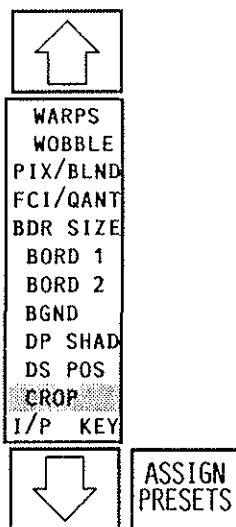
Values 1 to 13 give a basic shadow.

Values 14 and 15 fill in the diagonals.

Caution...

Dropshadow is below the active picture area.

3.24 CROP



S₁ ● HCROP
Reduces the horizontal active picture area enabling wide blanking to be cut out.

S₂ ● VCROP
Reduces the vertical active picture area, enabling switching noise to be cut out.

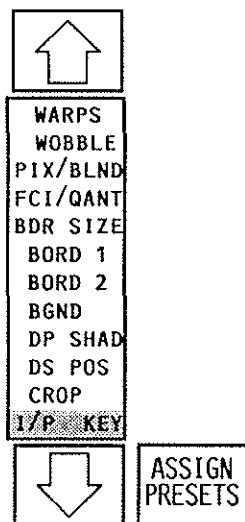
Note...

In a cropped picture the inside border (border 2) comes into the active picture area.

3

ASSIGN CONTROLS MENU

3.25 INPUT KEY



S₁ ● KEY DLY
Compensates for delays in the video paths between composite and component inputs.

S₂ ● KEY LEV
Sets the slice level of the key with respect to the input video level.

Note...

This is a slice key not a soft or variable key input.

3.26 ASSIGN CONTROLS

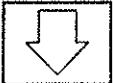
The spinwheel and T-bars (T1 and T2) can be assigned to functions listed in the ASSIGN PRESETS sub-menu. Selection of the function is made using the UP ARROW and DOWN ARROW buttons as necessary.



Moves the selection cursor up the sub-menu. When it reaches the top the cursor wraps around to the bottom.

GRAB TIM
SHOTTIME
SEQ TIME
SEQ POSN
FADE O/P
MIXER
VSIZE
HSIZE
HCIRC
HCREASE
HSKEW
HPERSP
ZOOM

ASSIGN PRESETS sub-menu.



Moves the selection cursor down the sub-menu. When it reaches the bottom the cursor wraps around to the top.

ASSIGN
SPIN

Enables and disables assignment of the spinwheel.

ASSIGN
T1

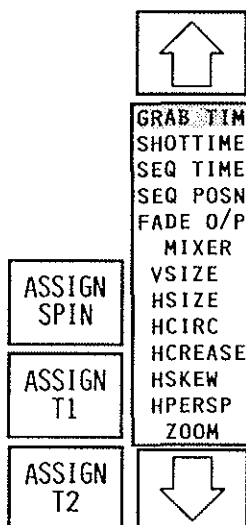
Enables and disables assignment of T-bar 1.

ASSIGN
T2

Enables and disables assignment of T-bar 2.

ASSIGN CONTROLS MENU

3.27 GRAB TIME

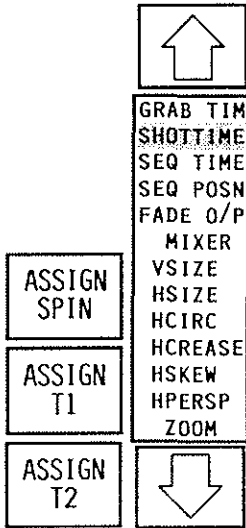


Grab time sets the time between samples of the multi-grab (or strobe) function over a range of 0 to 127 fields (from 0 to 2.5 seconds).

Note...

The FREEZE INPUT button, in the **EFFECTS** menu, must be set to ON for this function to operate.

3.28 SHOT TIME



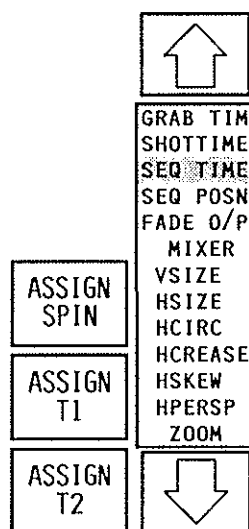
Shot time sets the time for individual shots in a programmed sequence.

Note...

It is usual to assign this function to the spinwheel.

ASSIGN CONTROLS MENU

3.29 SEQUENCE TIME



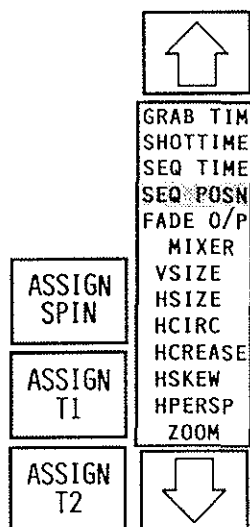
Adjusts the sequence time for a complete sequence or move.

Note...

It is usual to assign this function to the spinwheel.

Sequence time can also be set directly in the **EFFECTS** menu.

3.30 SEQUENCE POSITION



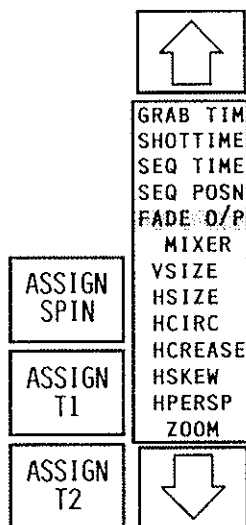
Sequence position makes the control step through the positions of the last performed sequence.

Note...

It is usual to assign the T-bars to this function.

ASSIGN CONTROLS MENU

3.31 FADE OUTPUT



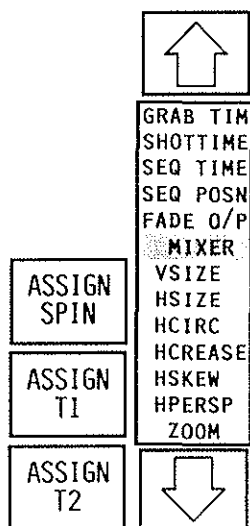
Allows the user to fade the system output to black.

Range 0 to 100, where 0 is black level.

Note...

It is usual to assign the T-bars to this function.

3.32 MIXER



Providing the mix parameters have been set, this function allows the user to mix between channels without going into the **MIXER CONTROL** menu.

Note...

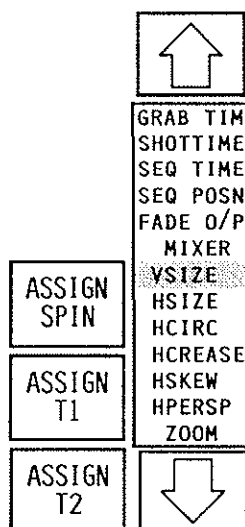
It is usual to assign the T-bars to this function.

Before using this function, the mix parameters must have been correctly set in the **MIXER CONTROL** menu.

3

ASSIGN CONTROLS MENU

3.33 VERTICAL SIZE

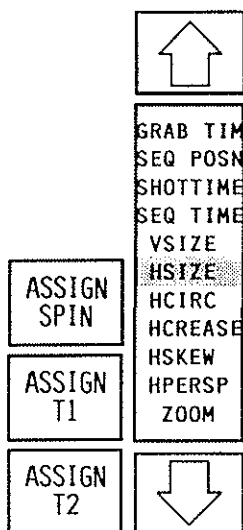


Vertical size sets the vertical size of the picture. Normal vertical picture size is obtained at value **100**.

Note...

Fine control can be made to the picture size by assigning the spinwheel.

3.34 HORIZONTAL SIZE



Horizontal size sets the horizontal size of the picture.

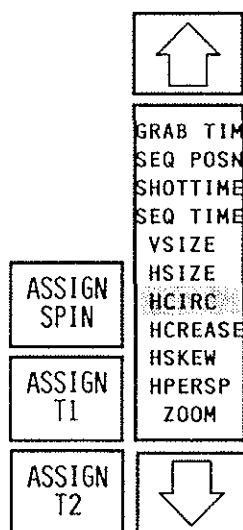
Normal horizontal picture size is obtained at value 100.

Note...

Fine control can be made to the picture size by assigning the spinwheel.

ASSIGN CONTROLS MENU

3.35 HORIZONTAL CIRCULAR



Horizontal circular maintains the horizontal size of the top and bottom of the picture and puts a curved function between the top and bottom of the picture.

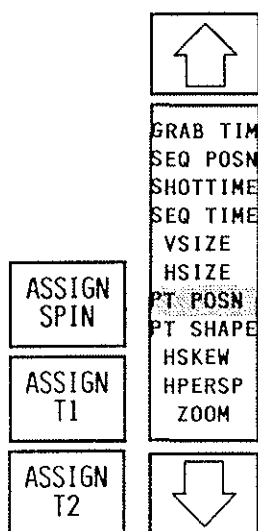
1 to 100 curves out.

-1 to -100 curves in.

Normal picture size is obtained at value 0.

When the PAGE TURN function is enabled HCIRC is retitled PT POSN. See paragraph 3.36.

3.36 PAGE TURN POSITION

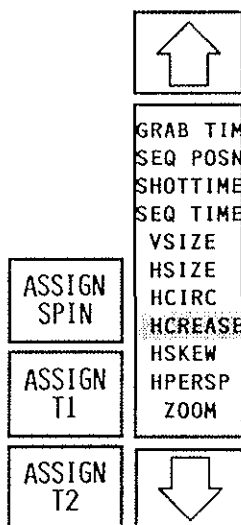


This sets the position of the corner of the page on a diagonal from bottom right to top left, over the range 0 to 200.

Full picture size is at 0.

ASSIGN CONTROLS MENU

3.37 HORIZONTAL CREASE



Horizontal crease maintains the horizontal size of the top and bottom of the picture and changes the middle horizontal size.

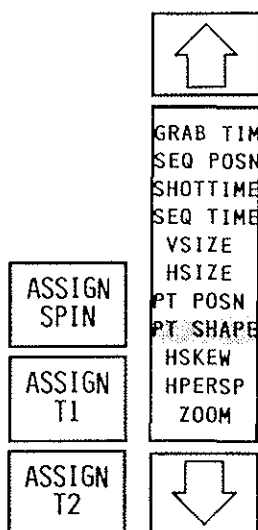
Normal picture is obtained at value 0.

See ASSIGN PRESETS -WARPS.

When the PAGE TURN function is enabled HCREASE is retitled PT SHAPE.

See paragraph 3.38.

3.38 PAGE TURN SHAPE

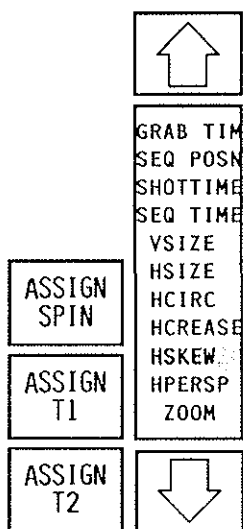


This sets the shape of the turned corner of the page over the range 0 to 200.

0 gives a curved page corner and 200 gives a square corner.

ASSIGN CONTROLS MENU

3.39 HORIZONTAL SKEW

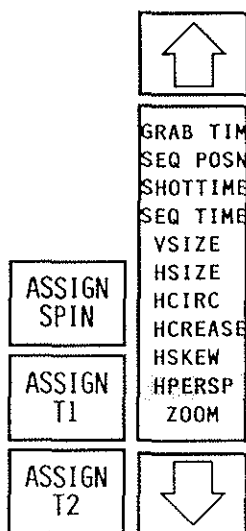


Horizontal skew changes the angle of the vertical lines in the picture. Horizontal lines remain unchanged.

Normal picture is obtained at value 0.

See ASSIGN PRESETS -WARPS.

3.40 HORIZONTAL PERSPECTIVE

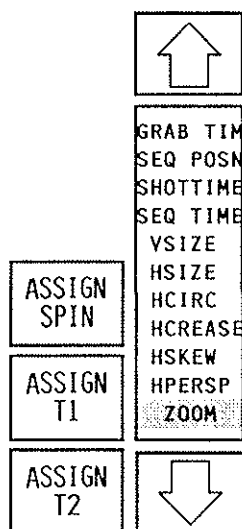


Horizontal perspective maintains the middle horizontal size of the picture and changes the ratio of the top to the bottom giving a one dimensional perspective picture. Horizontal lines remain unchanged.

See ASSIGN PRESETS -WARPS.

ASSIGN CONTROLS MENU

3.41 ZOOM



Zoom increases and decreases the relative picture size, up to a maximum of about twice normal size and a minimum of zero.

Normal picture size is obtained at value 100.

If the picture size appears to jitter when adjusted with the T-bar, either assign the spinwheel or de-assign the T-bar at the desired picture size.

3.42 FUNCTION BUTTONS

3.42.1 CENTRE HORIZONTAL POSITION



Irrespective of picture, size, shape, position or effect CENTRE H POS returns it to the horizontal centre of the screen.

3.42.2 CENTRE VERTICAL POSITION



Irrespective of picture, size, shape, position or effect CENTRE V POS returns it to the vertical centre of the screen.

3.42.3 POSITION AND ZOOM



Activates the joystick to control the picture size and position.

ASSIGN CONTROLS MENU

3.42.4 WARPS AND CIRCLE



Activates the joystick to control the picture shape.



HCIRC - maintains the horizontal size of the top and bottom of the picture and puts a curved function between the top and bottom of the picture.

1 to 100 curves out, -1 to -100 curves in.
Normal picture shape is obtained at 0.



HCREASE - maintains the horizontal size of the top and bottom of the picture and changes the middle horizontal size.
Normal picture shape is obtained at 0.



HSKEW - changes the angle of the vertical lines in the picture. Horizontal lines remain unchanged.
Normal picture shape is obtained at 0.

When the PAGE TURN function is enabled
HCIRC is retitled PT POSN and
HCREASE is retitled PT SHAPE.
The HSKEW function remains unchanged.
See paragraph 3.42.5.

3.42.5 (SECTION OMITTED)

ASSIGN CONTROLS MENU

3.42.6 SIZE AND PERSPECTIVE



Activates the joystick to control the picture size and shape.



HSIZE - sets the horizontal size of the picture.
Normal horizontal picture size is obtained at value 100.

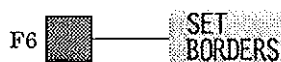


VSIZE - sets the vertical size of the picture.
Normal vertical picture size is obtained at value 100.



HPERSP - maintains the middle horizontal size of the picture and changes the ratio of the top to the bottom giving a one dimensional perspective picture.
Horizontal lines remain unchanged.

3.42.7 SET BORDERS



Activates the joystick to control the saturation, luminance and hue of the picture borders (if borders are set).

The initial press will select controls for border 1 (outer border), a second press of the button will select controls for border 2 (inner border).



BD1 [BD2] SAT - sets the saturation for the border 1 [border 2] colour.



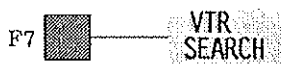
BD1 [BD2] LUM - sets the luminance for border 1 [border 2].



BD1 [BD2] HUE - sets the colour for border 1 [border 2].

A third press de-activates the function.

3.42.8 VTR SEARCH



Activates the joystick to control a VTR.

Not applicable to MS850B, MS851B and MS852B systems.

ASSIGN CONTROLS MENU

3.42.9 PAGE TURN



Activates the T-bars to control the PAGE TURN function and sets the z-axis of the joystick to control HSKEW.



PT SHAPE - This sets the shape of the corner of the page over the range 0 to 200.

0 gives a curved page corner and 200 gives a square corner.



PT POSN - This sets the position of the corner of the page on a diagonal from bottom right to top left, over the range 0 to 200.

Full picture size is at 0.



HSKEW - changes the angle of the vertical lines in the picture. Horizontal lines remain unchanged.

Normal picture shape is obtained at 0.

3.43 OTHER BUTTONS

3.43.1 NORMAL

NORMAL

Irrespective of picture, size, shape, position or effect
NORMAL returns it to full size centre screen.
Borders remain unchanged

3.43.2 CHANNEL BUTTON

CHANNEL
1

Shows channel 1 is selected.
In two channel systems, allows either channel 1 or
channel 2 to be selected.

CHANNEL
2

Shows channel 2 is selected.
In two channel systems allows either channel 1 or
channel 2 to be selected.

3.43.3 EFFECTS OR WIPES

EFFECTS
WIPES

Selects either EFFECTS or WIPES.
When set to wipes, it restores the picture to full size and
any movement or warp effects performed will affect the
key of the picture only.

EFFECTS
WIPES

This enables the picture to be wiped using the SLIDE
and ZOOM buttons.

3

ASSIGN CONTROLS MENU

This page is intentionally left blank.

3.44 GENERAL

SET H CROPTIME	NORMAL	P164 EFFECTS				CHANNEL 1
SET V CROPTIME		INPUT AND BORDERS				
SET I/P KEY					I/P KEY TTL	
SET DP SHAD		BORD1 OFF	BORD2 OFF	DS OFF	I/P KEY OFF	
SET BORD1						
SET BORD2		BYPASS	VIDEO 1	VIDEO 2	VIDEO 3	VIDEO 4
SET BGND		TPATT 1	YUV ANALOG	YUV DIGITAL	Y/C DUB	Y/C SVHS
ENTER		SEQ TIME 30 Frames HSIZ 100 VSIZ 100 HPOS 0 VPOS 0 P164 VSN XXXX				

3

The **INPUT AND BORDERS** menu allows the user to configure fixed parameters required during the compilation of effects, moves and sequences. It also allows the selection of different video inputs.

INPUT AND BORDERS MENU

3.45 VIDEO INPUTS

Eight video inputs can be selected, (although not all can be connected at the same time).

BYPASS	Connects the video 1 input directly to the MAIN output, thus bypassing the P164-38 circuits completely.	
VIDEO 1	Selects the video 1 input to the P164.	
VIDEO 2	Selects the video 2 input.	These inputs can be selected simultaneously.
VIDEO 3	Selects the video 3 input.	
VIDEO 4	Selects the video 4 input.	
YUV ANALOG	Selects the analogue component video input in place of video 1, video 3 and video 4.	
YUV DIGITAL	Selects the digital component input. This input requires a Digital Input/Output (DIO) option which occupies the BIM position in the P164-38.	
Y/C DUB	Selects the Y/C dub input in place of video 2.	
Y/C SVHS	Selects the Y/C S-VHS input.	

3.46 OFF/ON BUTTONS

Once set, the border, dropshadow and key parameters can be turned off and on as required using the off/on buttons.



One button with two states:
Border 1 (outer border) switched off.



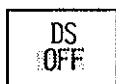
Border 1 (outer border) switched on.



One button with two states:
Border 2 (inner border) switched off.



Border 2 (inner border) switched on.



One button with two states:
Dropshadow switched off.



Dropshadow switched on.



One button with two states:
Key switched off.



Key switched on.

INPUT AND BORDERS MENU

3.47 TEST PATTERNS

Nine test patterns are available from the P164-38. They are introduced at the output of the unit so processing of the signal is not therefore possible.

Note...

On initial power up or reset, the P164-38 cycles through four test patterns, before displaying the selected input video.

TPATT 1	Produces colour bars (similar to the EBU bars 100% white, 75% colour saturation.
TPATT 2	Multiburst 50% grey, 0.5MHz, 1.5MHz, 2.5MHz, 3.58MHz, 4.43MHz and 5.5MHz.
TPATT 3	Pulse and bar, 20T pulse (V), 20T pulse (U), 2T luma, white bar and ramp.
TPATT 4	P164-38 specific pattern to check U and V: zero to full range ramp U and V.
TPATT 5	Test patterns 1, 2, 3 and 4 interlaced at approximately 120 lines spacing.
TPATT 6	Test patterns 1, 2, 3 and 4 interlaced at approximately 60 lines spacing.
TPATT 7	Test patterns 1, 2, 3 and 4 interlaced at approximately 30 lines spacing.
TPATT 8	Plain white screen.
TPATT 9	Plain yellow screen.

3.48 FUNCTION BUTTONS

3.48.1 SET HORIZONTAL CROP/TIMING

F1  

The system presets are temporarily reassigned to adjust the horizontal position and timing parameters.

 S₁

H CROP

Enables the picture to be cropped horizontally.



 S₂

I/P HPOS

Enables the cropped picture to be centred horizontally.

Note...


If the picture is cropped, the inside border (border 2) if set, comes into the picture area.

F8  

On pressing ENTER the parameters are stored and the presets return to their previous setting (if any).

INPUT AND BORDERS MENU

3.48.2 SET VERTICAL CROP/TIMING

F2  

The system presets are temporarily reassigned to adjust the vertical position and timing parameters.

 S₁

V CROP

Enables the picture to be cropped vertically.



 S₂

I/P VPOS

Enables the cropped picture to be centred vertically.

Note...

If the picture is cropped, the inside border (border 2) if set, comes into the picture area.

F8  

On pressing ENTER the parameters are stored and the presets return to their previous setting (if any).

3.48.3 SET INPUT KEY



The system presets are temporarily reassigned to adjust the key parameters.



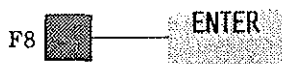
KEY DELY

Compensates for delays in the video paths between composite and component inputs.



KEY LEV

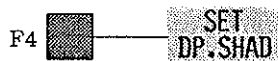
Sets the level of the key with respect to the input video level.



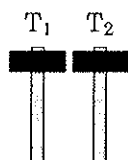
On pressing ENTER the parameters are stored and the presets return to their previous setting (if any).

INPUT AND BORDERS MENU

3.48.4 SET DROPSHADOW



The system presets are temporarily reassigned to adjust the dropshadow parameters.



Set the dropshadow position as follows:

T₁ horizontal position:

-50 shadow fully left.

0 no horizontal shadow.

50 shadow fully right.

T₂ vertical position below the effective picture area.

Note...

T₂ Values 0 to 13 give a basic shadow,

T₂ Values 14 to 15 fill in the diagonals.



DPS LUM

Adjusts the dropshadow luminance level.



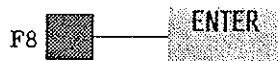
DPS HUE

Adjusts the dropshadow colour.



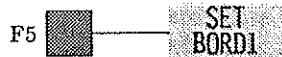
DPS SAT

Adjusts the dropshadow colour saturation.



On pressing ENTER the parameters are stored and the presets and T-bars return to their previous setting (if any).

3.48.5 SET BORDER 1 (outer border)



The system presets are temporarily reassigned to adjust the border parameters.



Adjusts the border size .

Note, when zooming...

For values 0 to 33 the border size remains constant.

For values 34 to 100 the border size is proportional to the vertical height of the picture.

T-bar T_2 will adjust the size of border 2, the presets will only control border 1.



BD1 LUM

Adjusts the outer border luminance level.



BD1 HUE

Adjusts the outer border colour.



BD1 SAT

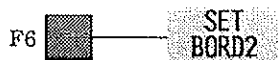
Adjusts the outer border colour saturation.



On pressing ENTER the parameters are stored and the presets and T-bars return to their previous setting (if any).

INPUT AND BORDERS MENU

3.48.6 SET BORDER 2 (inner border)



The system presets are temporarily reassigned to adjust the border parameters.



Adjusts the border size .

Note, when zooming...

For values 0 to 33 the border size remains constant.

For values 34 to 100 the border size is proportional to the vertical height of the picture.

T-bar T₁ will adjust the size of border 1, the presets will only control border 2.



BD2 LUM

Adjusts the outer border luminance level.



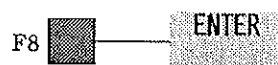
BD2 HUE

Adjusts the outer border colour.



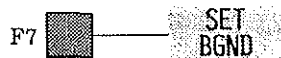
BD2 SAT

Adjusts the outer border colour saturation.



On pressing ENTER the parameters are stored and the presets and T-bars return to their previous setting (if any).

3.48.7 SET BACKGROUND



The system presets are temporarily reassigned to adjust the border parameters.



BGND LUM
Adjusts the background luminance level.



BGND HUE
Adjusts the background colour.



BGND SAT
Adjusts the background colour saturation.

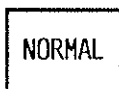


On pressing ENTER the parameters are stored and the presets and T-bars return to their previous setting (if any).

INPUT AND BORDERS MENU

3.49 OTHER BUTTONS

3.49.1 NORMAL

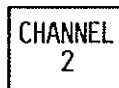


Irrespective of picture, size, shape, position or effect
NORMAL returns it to full size centre screen.
Borders remain unchanged

3.49.2 CHANNEL BUTTON



Shows channel 1 is selected.
In two channel systems, allows either channel 1 or
channel 2 to be selected.



Shows channel 2 is selected.
In two channel systems allows either channel 1 or
channel 2 to be selected.

3.50 GENERAL

3

SET CROP	NORMAL		SETUP INPUT SETUP		CHANNEL 1
SET TIMING					
SETYC DELAY	ERR FRZ OFF		DOC FRZ OFF	D.O.C. OFF	
SET LEVELS					
SET COLOUR	YA.G.C. OFF	CHROMA + OFF	PAL-S OFF	INPUT FRAME	
SET HUE	625 LINES PAL				
SET DROPOUT	AUTO	PAL	SECAM	NTSC 4.43	NTSC 3.58
	SEQ TIME 30 Frames HSIZ 100 VSIZ 100 HPOS 0 VPOS 0				ENCRYPT CODE CONFIG MENU

The **INPUT SETUP** menu is used to set parameters for the input video. The setup routine temporarily reassigns the system presets S1, S2 and S3 to control the levels for the input signal. It also gives access to the **CONFIGURATION** menu and the **ENCRYPTION** menu.

Other input signal functions can be turned off and on, using the OFF/ON buttons as necessary.

INPUT SETUP MENU

3.51 INPUT SIGNAL FUNCTIONS OFF/ON

3.51.1 ERROR FREEZE OFF/ON

ERR FRZ
OFF

One button toggles between two states.

When on, causes a field freeze whenever an error (e.g. missing sync. pulse) is detected.

ERR FRZ
ON

3.51.2 D.O.C. FREEZE OFF/ON

DOC FRZ
OFF

One button toggles between two states.

Sets the dropout compensator to repeat a field when the RF signal falls below a threshold level, set by SET DROPOUT.

DOC FRZ
ON

3.51.3 D.O.C. OFF/ON

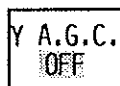
D.O.C.
OFF

One button toggles between two states.

Enables the dropout compensator to repeat line from the previous frame when the RF signal falls below a threshold set by SET DROPOUT.

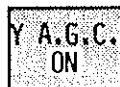
D.O.C.
ON

3.51.4 Y A.G.C. OFF/ON

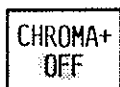


One button toggles between two states.

Enables the luma automatic gain control to correct the sync. amplitude (0.3V) in attenuated signals.



3.51.5 CHROMA ENHANCEMENT OFF/ON



One button toggles between two states.

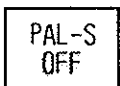
Enables the chroma edge enhancement (to sharpen the edge of colours).



Note...

Chroma enhance has the effect of increasing the chroma bandwidth. It does not affect the chroma level of the signal.

3.51.6 PAL-S OFF/ON



One button toggles between two states.

Sets the input to 'simple PAL', which does not have two-line chroma averaging.



Note...

This can cause chroma errors towards the end of lines. It should be used when playing a VT machine in dynamic tracking mode (faster or slower than normal speed) where the line length is not 64µs.

INPUT SETUP MENU

3.52 STANDARDS SELECTION

The P164-38 unit accepts signals in all four input standards, functioning as a standards converter to provide an output in either PAL or NTSC.

There is vertical interpolation, to smooth out the number of lines, but no time interpolation to compensate for the 50Hz/60Hz difference. Jitter on fast-moving objects may therefore occur.

PAL output units have their memory structured according to the 625-lines of the signal. The bottom portion of an NTSC picture will be black.

NTSC output units have their memory structured according to the 525-lines of the signal. The bottom 50 lines, or so, of the PAL picture will be cut off and not displayed.

AUTO

Allows the unit to automatically determine which standard is presented at the inputs.

This should be selected only where different standards are being regularly used. Setting a specified standard eliminates the risk of a colour flash on changeover to a different standard.

PAL

Selects normal PAL.

SECAM

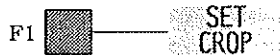
Selects both horizontal and vertical SECAM.

NTSC
4.43

Selects NTSC as used for some European NTSC applications.

NTSC
3.58

Selects NTSC as used in North America.

3.53 FUNCTION BUTTONS3.53.1 SET CROP

The system presets are temporarily reassigned to adjust the horizontal and vertical crop parameters.

S₁

H CROP

Enables the picture to be cropped horizontally.

S₂

V CROP

Enables the picture to be cropped vertically.

Note...

If the picture is cropped, the inside border (border 2) if set, comes into the picture area.

INPUT SETUP MENU

3.53.2 SET TIMING



The system presets are temporarily reassigned to adjust the timing parameters.



I/P HPOS

Adjusts the horizontal timing of the input video signal, over the range -32 to 31.
Enables the picture to be centralised for cropping, to remove unwanted wide blanking for example.



I/P VPOS

Adjusts the vertical timing of the input video signal, over the range -8 to 7.

Note...

0 is the calibrated level.

3.53.3 SET YC DELAY

F3

SET YC
DELAY

The system presets are temporarily reassigned to adjust the horizontal vertical luma and chroma delay.

S₁

Y-C HOR

Retards or advances the chroma signal to compensate for maladjusted VT machines. The range -32 to 31 is in 74ns pixels stages (total shift $\pm 2.4\mu\text{s}$), negative values make the chroma earlier.

S₂

Y-C VER

Retards or advances the chroma signal. The range 0 to 3 (in lines) compensates for multiple PAL or SECAM decoding.

Note...

0 is the calibrated level.

INPUT SETUP MENU

3.53.4 SET LEVELS



The system presets are temporarily reassigned to adjust the set levels parameters.



Y GAIN

Varies the Y gain over the range -50 to 50.



CHROMA

Varies the chroma gain over the range -50 to 50.



BLACK

Varies the black level of the input signal over the range -50 to 50.

Note...

0 is the calibrated level.

3.53.5 SET COLOUR



The system presets are temporarily reassigned to adjust the colour parameters.



S₁

U/V GAIN

Varies the gain of the U and V colour signals over the range -50 to 50 to assist in colour correction.

Low values tend towards green.

High values tend towards pink.



S₂

U BLACK

Fine tunes the colour of the input black level over the range -50 to 50.



S₃

V BLACK

Fine tunes the colour of the input black level over the range -50 to 50.

Note...

0 is the calibrated level.

INPUT SETUP MENU

3.53.6 SET HUE



The system presets are temporarily reassigned to adjust the hue input level (NTSC only).



HUE
Provides $\pm 30^\circ$ control of the input hue for NTSC signals only.

Note...

This has no effect in PAL or SECAM.

3.53.7 SET DROPOUT



The system presets are temporarily reassigned to adjust the dropout threshold level.



DROPLEV
Sets the dropout threshold when using the dropout compensator.

Note...

This requires a connection from the VTR to the D/O RF input socket on the rear of the P164-38.

Note...

If no signal is connected, the dropout level should be set to maximum (255).

Note...

0 is the calibrated level.

3.54 OTHER BUTTONS

3.54.1 NORMAL



Irrespective of picture, size, shape, position or effect
 NORMAL returns it to full size centre screen.
 Borders remain unchanged

3.54.2 CHANNEL BUTTON

3

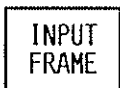


Shows channel 1 is selected.
 In two channel systems, allows either channel 1 or
 channel 2 to be selected.



Shows channel 2 is selected.
 In two channel systems allows either channel 1 or
 channel 2 to be selected.

3.54.3 INPUT FRAME/FIELD



One button toggles between two states.
 Set to FRAME the P164-38 decodes each
 frame of the input video.



Set to FIELD, a secondary button appears
 giving the unit the ability to demultiplex
 either the odd numbered fields or the even
 numbered fields within the multiplexed
 signal.

INPUT SETUP MENU

3.55 MENU BUTTONS

ENCRYPT
CODE

Takes the user into the **CODE** menu.

CONFIG
MENU

Takes the user into the **CONFIGURATION** menu.

3.56 GENERAL

SETUP

OUTPUT SETUP

CHANNEL
1

SET
PHASE

GENLOCK
OFF

ADV.SYNC
OFF

ENCRYPT
CODE

CONFIG
MENU

SEQ TIME 30 Frames

HSIZ 100 VSIZ 100

HPOS 0 VPOS 0

3

The **OUTPUT SETUP** sub-menu controls the output of the P164-38.

OUTPUT SETUP MENU

3.57 SET PHASE

SET
PHASE

The system presets are temporarily reassigned to adjust the phase parameters.

S₁



SC PHASE

Provides fine adjustment of the chroma phase (about $\pm 10^\circ$) over the range -50 to 50.

Note...

Full 360° adjustment is available inside the unit on the encoder PCB as follows:

Loosen the six screws securing the front panel and swing it away from the rest of the unit to reveal an air mask. Do not remove the air mask.

The sub-carrier phase control is located just off-centre (right) at the bottom. Pass a screwdriver through the air mask hole and carefully adjust the ten-turn pot.

S₂



H PHASE

Moves the output picture left and right (about -1 μ s and +2.5 μ s) with respect to the reference signal over the range -50 to 50.

Note...

The whole signal, including sync. pulses etc., is moved using this control.

ENTER

On pressing ENTER the parameters are stored and the presets return to their previous setting (if any).

3.58 GENLOCK OFF/ON

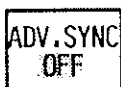


One button toggles between two states.
When on, it enables the P164-38 to 'slave' to an external black and burst signal.



When off, the unit derives syncs from the internal sync pulse generator.

3.59 ADVANCE SYNC. OFF/ON



One button toggles between two states.
Allows the timing of signals through a number of units to be standardised to either one field advanced or to the same timing as the reference/main output.



Note...

This is purely a sync signal; there is no colour burst or other information in it.

3.60 CHANNEL BUTTON



Shows channel 1 is selected.
In two channel systems, allows either channel 1 or channel 2 to be selected.



Shows channel 2 is selected.
In two channel systems allows either channel 1 or channel 2 to be selected.

OUTPUT SETUP MENU

3.61 MENU BUTTONS

ENCRYPT
CODE

Takes the user into the **CODE** menu.

CONFIG
MENU

Takes the user into the **CONFIGURATION** menu.

3.62 GENERAL

PREVIEW PROGRAM	BIM NORMAL		MIXER CONTROL		CHANNEL 1
PREVIEW CH1	CHANNEL KEY CONTROL				
PREVIEW CH2	CH1 KEY OFF	CH2 KEY OFF	CH3 KEY OFF	T1 MIXER 100	
PREVIEW CH3				LAYER 1 OFF	T2 FADE O/P
PREVIEW BGND VID	MIXER PRIORITY CONTROL				
	LAYER 1 CH 1	LAYER 2 CH 2	LAYER 3 CH 3	LAYER 2 OFF	
PREVIEW KEY1	LAYER 1 FADER	LAYER 2 FADER	LAYER 3 FADER	O/P FADER	LAYER 3 OFF
PREVIEW KEY2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
PREVIEW KEY3	SEQ TIME 30 Frames HSIZ 100 VSIZ 100 HPOS 0 VPOS 0				

The MS851B and MS852B systems have a Built-In Mixer (B.I.M.) fitted. This provides mixing and keying facilities for three channels of video, all of which can be laid over a separate background video source.

3.63 CONNECTION

In two-channel systems (MS852B), the unit with the B.I.M. should always be channel 1.

Note...

If both P164-38 units have B.I.M.s fitted then only the channel 1 unit should have a video signal present on the PREVIEW socket when it is powered.

MIXER CONTROL MENU

3.64 OPERATION

The B.I.M. has three 'Layers' which can appear over (on top of) the background video picture - if each one is 'keyed' to be less than full size.

Layer 1 is on top (at the front), Layer 2 behind it and Layer 3 at the back. The two effects channels and the external channel 3 can each be assigned to any one of the three layers (to set the order of the pictures). Each layer can be individually mixed up and down, or the whole setup can be faded to black.

3.65 BIM NORMAL



Resets all the key settings to a nominal state:

Channel 1:

ON, LAYER 1, Fader FULLY UP.

Channel 2:

ON, LAYER 2, Fader FULLY UP.

Channel 3:

OFF, LAYER 3, Fader FULLY UP.

3.66 CHANNEL 1 AND 2 KEY BUTTONS

One button for each channel which toggles between three states.

CH1 KEY
ON

Normal setting. The video appears only where the active picture is present, plus any borders and dropshadow.

CH1 KEY
FULL

Makes the chosen channel have a full screen key, and nothing behind it is visible. For the effects channels this would mean that the background colour is visible around the picture.

CH1 KEY
OFF

The picture from channel 1 disappears.

CH2 KEY
ON

Normal setting. The video appears only where the active picture is present, plus any borders and dropshadow.

CH2 KEY
FULL

Makes the chosen channel have a full screen key, and nothing behind it is visible. For the effects channels this would mean that the background colour is visible around the picture.

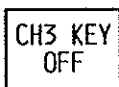
CH2 KEY
OFF

The picture from channel 2 disappears.

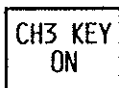
MIXER CONTROL MENU

3.67 CHANNEL 3 KEY BUTTONS

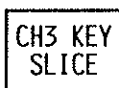
One button for each channel which toggles between three states.



Switches the channel 3 key off. No picture is displayed.



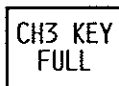
Normal setting. The video appears only where the active picture is present.



Sets the channel 3 key to be a slice key and brings up a slice level button to enable the slice level to be set.



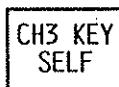
Sets the slice level for the channel 3 key.



Makes the channel have a full screen key, and nothing behind it is visible



Sets the key to be an analogue signal rather than a TTL signal.



Sets the channel 3 key to be a self (luma) key.

3.68 MIXER PRIORITY CONTROLS

One button for each layer which toggles between three states.

LAYER 1
CH 1

Places channel 1 video on top (at the front) of all other pictures.

LAYER 1
CH 2

Places channel 2 video on top (at the front) of all other pictures.

LAYER 1
CH 3

Places channel 3 video on top (at the front) of all other pictures.

LAYER 2
CH 1

Places channel 1 video on top (at the front) of layer 3 video, but underneath layer 1 video.

LAYER 2
CH 2

Places channel 2 video on top (at the front) of layer 3 video, but underneath layer 1 video.

LAYER 2
CH 3

Places channel 3 video on top (at the front) of layer 3 video, but underneath layer 1 video.

LAYER 3
CH 1

Places channel 1 video underneath all other pictures.

LAYER 3
CH 2

Places channel 2 video underneath all other pictures.

LAYER 3
CH 3

Places channel 3 video underneath all other pictures.

MIXER CONTROL MENU

3.69 MIXER CONTROLS

Each layer can be assigned to be mixed up and down with T-Bar 1. The other T-Bar can be assigned as a fader control.

One button per layer plus fader, toggling between three states.

LAYER 1
OFF

T-bar 1 has no effect on layer 1 video.

LAYER 1
NORMAL

T-bar 1 fades layer 1 up and down.

LAYER 1
INVERT

T-bar 1 fades layer 1 down and up.

LAYER 2
OFF

T-bar 1 has no effect on layer 2 video.

LAYER 2
NORMAL

T-bar 1 fades layer 2 up and down.

LAYER 2
INVERT

T-bar 1 fades layer 2 down and up.

LAYER 3
OFF

T-bar 1 has no effect on layer 3 video.

LAYER 3
NORMAL

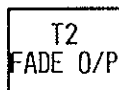
T-bar 1 fades layer 3 up and down.

LAYER 3
INVERT

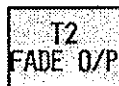
T-bar 1 fades layer 3 down and up.

3.70 FADER CONTROL

One button which toggles between two states.



T-bar 2 has no effect on the system output.



T-bar 2 fades the system output to black.

3

3.71 CHANNEL BUTTON



Shows channel 1 is selected.

In two channel systems, allows either channel 1 or channel 2 to be selected.



















Shows channel 2 is selected.

In two channel systems allows either channel 1 or channel 2 to be selected.

MIXER CONTROL MENU

3.72 FUNCTION BUTTONS

3.72.1 PREVIEWS

- F1   Selects programme output video to the preview output.
- F2   Selects channel 1 video to the preview output.
- F3   Selects channel 2 video to the preview output.
- F4   Selects channel 3 video to the preview output.
- F5   Selects background video to the preview output.
- F6   Selects key 1 video to the preview output.
- F7   Selects key 2 video to the preview output.
- F8   Selects key 3 video to the preview output.

3.73 GENERAL

CENTRE H POS	NORMAL	SEQUENCES SEQUENCE EDIT				CHANNEL 1
CENTRE V POS			FLIP OFF	WOBBLE OFF		
POSITION & ZOOM			TUMBLE OFF	PERSPIN TUMBLE		
WARPS & CIRCLE		RUN SEQ	SHOW CURRENT	PREVIOUS SHOT	NEXT SHOT	
SIZE & PERSP	DELETE SHOT	SEQUENCE SEQ 1 TOTAL SHOTS 0 CURRENTSHOT 0 TOTAL TIME 0				USER STATES
SET BORDERS	GO/STOP ALL					SEQ MASK
REPLACE SHOT		MOVE INSTANT	MOVE LINEAR	MOVE CURVE	NEXT SEQ	SEQ LIB
INSERT SHOT	SHOT TIME	SHOTTIME 30 Frames HSIZ 100 VSIZ 100 HPOS 0 VPOS 0				

3

This menu is used to create new sequences and edit sequences as selected in the **EFFECTS** or **SEQUENCE LIBRARY** menus.

It also gives access to the **USER STATES** menu, the **SEQUENCE MASK** menu and the **SEQUENCE LIBRARY** menu.

SEQUENCE EDIT MENU

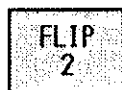
3.74 FLIP



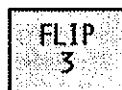
FLIP attribute disabled.



Sets the picture to rotate once, about a vertical axis through the centre of the picture, as the move is performed.



Sets the picture to rotate twice, about a vertical axis through the centre of the picture, as the move is performed.



Sets the picture to rotate three times, about a vertical axis through the centre of the picture, as the move is performed.

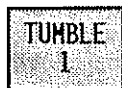
Note...

These features of the movement apply to the move from the current shot to the next one. Any of these which are set will stay on for the rest of the sequence, unless specifically turned off in a later shot.

3.75 TUMBLE



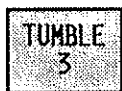
Tumble attribute disabled.



Sets the picture to rotate once, about a horizontal axis, as the move is performed.



Sets the picture to rotate twice, about a horizontal axis, as the move is performed.



Sets the picture to rotate three times about a horizontal axis as the move is performed.



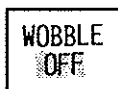
Adds the effect of the image tipping away from the viewer as the picture tumbles.

Note...

These features of the movement apply to the move from the current shot to the next one. Any of these which are set will stay on for the rest of the sequence, unless specifically turned off in a later shot.

SEQUENCE EDIT MENU

3.76 WOBBLE OFF/ON



If the WOBBLE parameters have been set in the **ASSIGN CONTROLS** menu, then the WOBBLE function can be implemented to the current displayed picture.



3.77 GO/STOP ALL/CURRENT

One button toggles between two states.



Enables the TAKE switches to control all channels.



Enables the TAKE switches to control only the currently selected channel.

3.78 SHOT PREVIEW



Steps backwards through the sequence, one shot at a time.



If the picture has been moved or changed, show current sets the picture and settings back to the position of the current shot.



Steps forwards through the sequence, one shot at a time.

3.79 DELETE SHOT

DELETE
SHOT

Removes the current shot. Any subsequent shots are renumbered.

3.80 RUN SEQUENCE

RUN
SEQUENCE

Runs the current sequence, from its start to its end.

This can be repeated or reversed using the TAKE switches.

3

3.81 SEQUENCE MOVE ATTRIBUTES

MOVE
INSTANT

Makes the picture hold its position and settings at the set state for the programmed shot time for that move. It then jumps instantly to the next shot.

MOVE
LINEAR

The movement to the current shot in the sequence will follow a linear path.

MOVE
CURVE

The movement to the current shot in the sequence will follow a curved path. This will be calculated to give a parabolic 'best fit' line exactly through every shot, smoothly joining with the curve to the shot before and the shot after the current move, if they are also set to be curved.

Note...

These features of the movement apply to the move from the current shot to the next one. Any of these which are set will stay on for the rest of the sequence, unless specifically turned off in a later shot.

SEQUENCE EDIT MENU

3.82 SHOT TIME



Assigns the spinwheel to adjust the time for a shot. The maximum time is 511 frames (20.4s in PAL, 17s in NTSC).

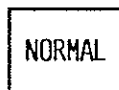
3.83 NEXT SEQUENCE



Steps through the sequences currently loaded in the sequence store.

3.84 OTHER BUTTONS

3.84.1 NORMAL



One button with three functions.

Irrespective of picture, size, shape, position or effect One press returns the picture, at its current size, to centre screen.

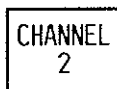
Two presses returns the picture, at its current size, to centre screen and clears any effects set (borders remain unchanged).

Three presses returns the picture to full size, centre screen and clears any effects set (borders remain unchanged).

3.84.2 CHANNEL BUTTONS



Shows channel 1 is selected.
In two channel systems, allows either channel 1 or channel 2 to be selected.



Shows channel 2 is selected.
In two channel systems allows either channel 1 or channel 2 to be selected.

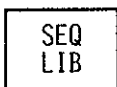
3.85 MENU BUTTONS



Takes the user into the **USER STATES** menu.



Takes the user into the **SEQUENCE MASK** menu.



Takes the user into the **SEQUENCE LIBRARY** menu.

3.86 DISPLAYS

SEQUENCE	Shows the sequence currently available for editing.
TOTAL SHOTS	Lists how many shots have been saved in the current sequence. The maximum number of shots in any sequence is 29.
CURRENT SHOT	Shows the current shot being displayed as a picture.
TOTAL TIME	Shows the total time (in frames) for the currently displayed shot in the current sequence.

SEQUENCE EDIT MENU

3.87 FUNCTION BUTTONS

3.87.1 CENTRE HORIZONTAL POSITION



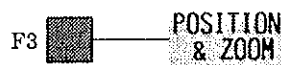
Irrespective of picture, size, shape, position or effect CENTRE H POS returns it to the horizontal centre of the screen.

3.87.2 CENTRE VERTICAL POSITION



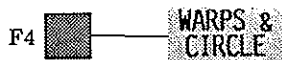
Irrespective of picture, size, shape, position or effect CENTRE V POS returns it to the vertical centre of the screen.

3.87.3 POSITION AND ZOOM



Activates the joystick to control the picture size and position.

3.87.4 WARPS AND CIRCLE



Activates the joystick to control the picture shape.



HCIRC - maintains the horizontal size of the top and bottom of the picture and puts a curved function between the top and bottom of the picture.

1 to 100 curves out, -1 to -100 curves in.
Normal picture shape is obtained at 0.



HCREASE - maintains the horizontal size of the top and bottom of the picture and changes the middle horizontal size.

Normal picture shapeb is obtained at 0.



HSKEW - changes the angle of the vertical lines in the picture. Horizontal lines remain unchanged.

Normal picture shape is obtained at 0.

When the PAGE TURN function is enabled

HCIRC is retitled PT POSN and

HCREASE is retitled PT SHAPE.

The HSKEW function remains unchanged.

SEQUENCE EDIT MENU

3.87.5 SIZE AND PERSPECTIVE



Activates the joystick to control the picture size and shape.



HSIZE - sets the horizontal size of the picture.

Normal horizontal picture size is obtained at value 100.



VSIZE - sets the vertical size of the picture.

Normal vertical picture size is obtained at value 100.



HPERSP - maintains the middle horizontal size of the picture and changes the ratio of the top to the bottom giving a one dimensional perspective picture.

Horizontal lines remain unchanged.

3.87.6 SET BORDERS



Activates the joystick to control the saturation, luminance and hue of the picture borders and the T-bars to control border size (if borders are on).

The initial press will select controls for border 1 (outer border), a second press of the button will select controls for border 2 (inner border).



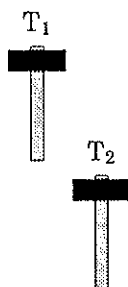
BD1 [BD2] SAT - sets the saturation for the border 1 [border 2] colour.



BD1 [BD2] LUM - sets the luminance for border 1 [border 2].



BD1 [BD2] HUE - sets the colour for border 1 [border 2].



BORDER 1

Adjusts the size of the outer border around the picture.

BORDER 2

Adjusts the size of the inner border around the picture.

Note...

For values 0 to 34 the border size remains constant when zooming.

For values 35 to 100 the border size is proportional to the vertical height of the picture.

SEQUENCE EDIT MENU

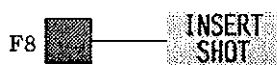
3.87.7 REPLACE SHOT



Replaces the current shot with the new picture size, shape, position and attributes that have been set up.

If the picture has been moved or changed, SHOW CURRENT sets the picture and settings back to the position of the current shot.

3.87.8 INSERT SHOT



Takes the current size, shape, position and attributes of the current picture and creates a shot.

The time from the shot is the current shot time (displayed at the bottom of the menu). For a new sequence, this becomes shot 1; if inserting a shot in the middle of a sequence, subsequent shots are renumbered.

3.88 GENERAL

SEQUENCES SEQUENCE MASK			
BORDERS	PIX FCI QUANT	CROP	FLIP TUMBLES FREEZE
I/P SETUP	I/P SELECT	BGROUND	BIM
SEQUENCE SEQ1			

3

The **SEQUENCE MASKS** menu is accessed from either the **EFFECTS** menu or the **SEQUENCE EDIT** menu.

A sequence can be programmed with masks set so that groups of parameters are not changed whenever the sequence is run.

The default setting for each sequence is to have no masks set thus running the sequence will cause the picture to move with the attributes that were set when the sequence was created.

However, it may be desirable to run a particular sequence with the current input selection, parameters, borders etc. rather than those that were set when the sequence was created.

SEQUENCE MASK MENU

Every group of parameters in a sequence except for a picture movement itself can be masked, such that running the sequence does not affect the current setting.

Masking can either be done when the sequence is created, or immediately before a previously programmed sequence is run.

3.89 SEQUENCE MASK BUTTONS



When the sequence is run, the borders and dropshadow will be as set when the sequence was created.



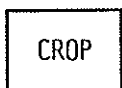
Borders masked. When the sequence is run the current setting for borders and the dropshadow will be used.



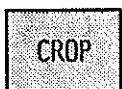
When the sequence is run, the pixellation, blinds, false colour imaging and quantisation parameters will be as set when the sequence was created.



Pixellation, blinds, false colour imaging and quantisation parameters masked. When the sequence is run the current settings for these parameters will be used.



When the sequence is run, the input crop parameters will be as set when the sequence was created.



Input crop parameters masked. When the sequence is run the current settings will be used.

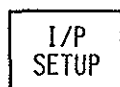


When the sequence is run, the flip, tumble, freeze and mirror parameters will be as set when the sequence was created.



Flip, tumble, freeze and mirror parameters masked. When the sequence is run the current settings for these parameters will be used.

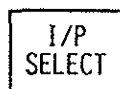
SEQUENCE MASK MENU



When the sequence is run, the input video parameters will be as set when the sequence was created.



Input video parameters masked. When the sequence is run the current input video settings will be used.



When the sequence is run, the input selection will be as set when the sequence was created.



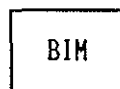
Input selection masked. When the sequence is run the current input selection will be used.



When the sequence is run, the background colour will be as set when the sequence was created.



Background masked. When the sequence is run the current settings for the background will be used.



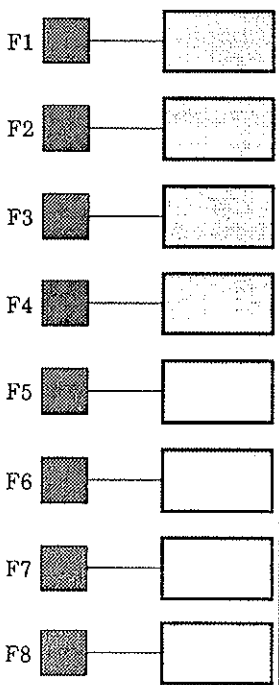
When the sequence is run, the B.I.M parameters will be as set when the sequence was created.



B.I.M parameters masked. When the sequence is run the current B.I.M settings will be used.

Note...

Only applicable to MS851B and MS852B systems.

3.90 USER-PROGRAMMED SEQUENCE BUTTONS

Shows the eight (or less) sequence currently loaded into the sequence store. When a sequence is selected, by pressing the appropriate button, the mask buttons show the state of mask setting for that sequence.

Selecting a sequence in this area makes it 'current' in the sequence store.



SEQUENCE MASK MENU



This page is intentionally left blank.

3.91 GENERAL

SEQUENCES
SEQ LIBRARY

SEQUENCE DIRECTORY		SEQUENCE STORE	
File	Date	Seq name	Shots
PERSP:AB	01/05/90	No Seq.	0
VPERS-BA	01/05/90	No Seq.	0
V-BOX:AB	01/05/90	No Seq.	0
BOUNCE-A	01/05/90	No Seq.	0
ANG-SLID	01/05/90	No Seq.	0
H-BOX:BA	01/05/90	No Seq.	0
PAGETURN	01/05/90	No Seq.	0
DROP-BA	01/05/90	No Seq.	0
HPUSH:AB	01/05/90	No Seq.	0
HPUSH:BA	01/05/90	No Seq.	0

LOAD
SEQ

REMOVE
SEQ

SAVE
SEQ

INCLUDE
CONTENTS

DELETE
FILE

SET
FILES

3



The **SEQUENCE LIBRARY** menu enables the user to load previously programmed sequences from disk and to store newly created sequences onto disk.

It also gives control of the 'cache' of current on-line sequences in the sequence store.

Sequences can be stored and retrieved as individual files or as a set of files (up to 8).

SEQUENCE LIBRARY MENU

3.92 SEQUENCE/SET DIRECTORY

	SEQUENCE DIRECTORY	
	File	Date
	PERSP:AB	01/05/90
	VPERS-BA	01/05/90
	V-BOX:AB	01/05/90
	BOUNCE-A	01/05/90
	ANG-SLID	01/05/90
	H-BOX:BA	01/05/90
	PAGETURN	01/05/90
	DROP-BA	01/05/90
	HPUSH:AB	01/05/90
	HPUSH:BA	01/05/90

The sequence/set directory provides a window into the sequences and sets stored on the disk; ten files are displayed at any one time. The arrow buttons move the cursor up and down the sub-menu. The display then scrolls up or down when the limit at either end is reached.

3.93 SEQUENCE/SET FILES

One button with two states.



Enables individual moves, effects and sequences from the sequence library to be loaded into the sequence store.



Enables sets of moves, effects and sequences from the sequence library to be loaded into the sequence store.

3.94 LOAD SEQUENCE/SET

One button with two states.

LOAD
SEQ

Loads the selected sequence from the sequence directory (on disk) into the sequence store (in the P152B memory).

LOAD
SET

Loads the selected set of sequences from the sequence directory (on disk) into the sequence store (in the P152B memory).

3

3.95 DELETE FILE

DELETE
FILE

Initiates the deletion of a sequence from the sequence directory (i.e. from the disk).


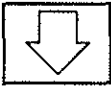
Note...

CONFIRM
DELETE

The desired file will not be deleted unless the CONFIRM DELETE button is pressed within five seconds.

SEQUENCE LIBRARY MENU

3.96 SEQUENCE STORE

	<table><tr><th>SEQUENCE</th><th>STORE</th></tr><tr><th>Seq name</th><th>Shots</th></tr><tr><td>No Seq.</td><td>0</td></tr><tr><td>No Seq.</td><td>0</td></tr><tr><td>No Seq.</td><td>0</td></tr><tr><td>No Seq.</td><td>0</td></tr><tr><td>No Seq.</td><td>0</td></tr><tr><td>No Seq.</td><td>0</td></tr><tr><td>No Seq.</td><td>0</td></tr><tr><td>No Seq.</td><td>0</td></tr><tr><td colspan="2">SET =</td></tr></table>	SEQUENCE	STORE	Seq name	Shots	No Seq.	0	No Seq.	0	No Seq.	0	No Seq.	0	No Seq.	0	No Seq.	0	No Seq.	0	No Seq.	0	SET =	
SEQUENCE	STORE																						
Seq name	Shots																						
No Seq.	0																						
No Seq.	0																						
No Seq.	0																						
No Seq.	0																						
No Seq.	0																						
No Seq.	0																						
No Seq.	0																						
No Seq.	0																						
SET =																							
																							

Shows the names of the sequences which are available to run immediately. The arrow buttons move the cursor up and down the sub-menu.

The eight numbered slots correspond to the eight spaces in the reserved area of the **EFFECTS** menu.

The current sequence together with its details (no. of shots) is highlighted by the cursor.

Running a sequence from the effects menu makes it current.

Where a sequence is part of a set, the set title is displayed at the bottom of the sequence store sub-menu.

An empty space in the sequence store is indicated by **NO SEQ.** 0

Note...

The total number of shots that can be stored is about 100.

However, if several long sequences are loaded into the store, it may become full before all nine sequences are entered.

A message, 'Cache Full' appears when the sequence store is full.

3.97 REMOVE SEQUENCE/SET

One button with two states.

REMOVE
SEQ

Deletes the current (i.e. highlighted) sequence from the sequence store (does not affect the disk).

REMOVE
SET

Deletes the set of sequences currently in the sequence store (does not affect the disk).

3

3.98 SAVE SEQUENCE/SET

One button with two states.

SAVE
SEQ

Saves a sequence to the sequence directory (and disk).

Note...

Ensure the sequence to be saved is the 'current sequence', i.e. it is highlighted in the sequence store.

The save routine then allows the user to title the sequence via the keyboard page.

The sequence title may contain up to eight characters. If there is already a file of that name, it can be deleted and replaced.

SAVE
SET

Saves a set of sequences to the set directory (and disk).

The save routine then allows the user to title the set via the keyboard page.

The set title may contain up to eight characters. If there is already a file of that name, it can be deleted and replaced.

SEQUENCE LIBRARY MENU

3.99 INCLUDE CONTENTS

INCLUDE
CONTENTS

Only applicable to sets.

When selected it enables the user to view the contents of the set file.

3.100 KEYBOARD

SEQUENCES										CANCEL
KEYBOARD										
SEQ:NAME										ENTER
0										BACK SPACE
1	2	3								
4	5	6								
7	8	9								
A	B	C	D	E	F	G	H			
I	J	K	L	M	N	O	P			
Q	R	S	T	U	V	W	X			
Y	Z	/	,	:	!	-	#			

3.100.1 BACKSPACE

BACK
SPACE

Backspaces the cursor. Enables correction of typographical errors or changes of sequence name

3.100.2 ENTER

ENTER

Stores the current sequence with the name as displayed on the keyboard page.

3.100.3 CANCEL

CANCEL

Exits from the keyboard menu without saving a sequence, and returns the use to the **SEQUENCE LIBRARY** menu.

3

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3.101 GENERAL

P164 EFFECTS				CHANNELS 1	ALL CHANNELS
USER STATES					
P164 SAVE USER STATES					
USER STATE 1	USER STATE 2	USER STATE 3	USER STATE 4		
P164 RECALL USER STATES					
USER STATE 1	USER STATE 2	USER STATE 3	USER STATE 4		
<div style="border: 1px solid black; display: inline-block; padding: 5px; margin: 10px;">FACTORY RESET</div>					
SEQ TIME 30 Frames HSIZ 100 VSIZ 100 HPOS 0 VPOS 0					

3

The **USER STATES** menu is accessed from the **EFFECTS** menu or the **SEQUENCE EDIT** menu.

It provides a facility to store settings of the entire status of the unit for recall later (even after the power has been removed) to quickly reconfigure the equipment to a frequently used or known state.

3.102 FACTORY RESET

**FACTORY
RESET**

Resets the P164-38 to the factory preset state.
This overrides any user adjustments made with the controller, and should only be used if, somehow, the data in the state stores has become corrupted.

Note...

There is protection on this button.
If pressed, the message ARE YOU SURE appears together with a CONTINUE button.
The user then has 5 seconds to confirm the reset otherwise the request is cancelled.

3.103 P164 SAVE USER STATES

3.103.1 USER STATE 1

**USER
STATE 1**

Stores the current state of the P164-38 into memory 1.
This includes video input levels, delays, borders, picture size etc. such that frequently used states can be quickly recalled.

Note...

This memory is erased when a factory reset is performed.

3.103.2 USER STATE 2

USER
STATE 2

Stores the current state of the P164-38 into memory 2. This includes video input levels, delays, borders, picture size etc. such that frequently used states can be quickly recalled.

Note...

This memory is erased when a factory reset is performed.

3

3.103.3 USER STATE 3

USER
STATE 3

Stores the current state of the P164-38 into memory 3. This includes video input levels, delays, borders, picture size etc. such that frequently used states can be quickly recalled.

Note...

This memory is erased when a factory reset is performed.

3.103.4 USER STATE 4

USER
STATE 4

Stores the current state of the P164-38 into memory 4. This includes video input levels, delays, borders, picture size etc. such that frequently used states can be quickly recalled.

Note...

This memory is erased when a factory reset is performed.

USER STATES MENU

3.104 P164 RECALL USER STATES

3.104.1 USER STATE 1



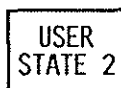
Resets the P164-38 with the parameters stored in memory 1.

This includes video input levels, delays, borders, picture size etc.

Note...

This memory is erased when a factory reset is performed.

3.104.2 USER STATE 2



Resets the P164-38 with the parameters stored in memory 2.

This includes video input levels, delays, borders, picture size etc.

Note...

This memory is erased when a factory reset is performed.

3.104.3 USER STATE 3



Resets the P164-38 with the parameters stored in memory 3.

This includes video input levels, delays, borders, picture size etc.

Note...

This memory is erased when a factory reset is performed.

3.104.4 USER STATE 4

USER
STATE 4

Resets the P164-38 with the parameters stored in memory 4.
This includes video input levels, delays, borders, picture size etc.

Note...

This memory is erased when a factory reset is performed.

3

3.105 OTHER BUTTONS

3.105.1 ALL CHANNELS

ALL
CHANNELS

When enabled the parameters, as stored in the user state stores, reset for all channels.

3.105.2 CHANNEL BUTTON

CHANNEL
1

Shows channel 1 is selected.
In two channel systems, allows either channel 1 or channel 2 to be selected.

CHANNEL
2

Shows channel 2 is selected.
In two channel systems allows either channel 1 or channel 2 to be selected.

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3.106 GENERAL

SETUP CONFIGURATION						RE-BOOT MAURICE
P164 CONFIGURATION						
P164 1 CHAN	B.I.M.	CHANNEL 1	MODEL 38			
				P169 OFF		
ERIC CONFIGURATION						
ERIC	TCODE READER	VIDEO MIXER	SLUG CARD			
				LOAD ALL MENUS	RELOAD SEQS	SYSTEM STATUS
JOYSTICK COARSE	SET BRIGHT	SET DATE	SET TIME	GPI OFF	CLICK ON	DISK UTILS
SEQ TIME 30 Frames 01:42 pm HSIZ 100 VSIZ 100 04:05:90 HPOS 0 VPOS 0						

3

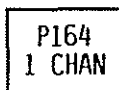
The **CONFIGURATION** menu is accessed from the **SETUP** menu.

It provides a facility to configure the system to the user requirements.

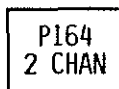
CONFIGURATION MENU

3.107 P164 CONFIGURATION

3.107.1 CHANNEL BUTTON



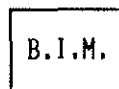
Configures the equipment to drive either a single channel or dual channel P164-38 digital effects system.



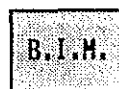
Note...

The system can be configured for up to four channels.

3.107.2 B.I.M.

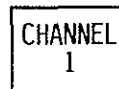


Built-in mixer option disabled.

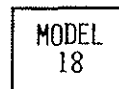


Configures the equipment to support a built-in mixer.

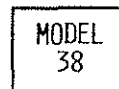
3.107.3 P164 CONFIGURATION



Selects the channel for configuration of the P164-38.



Configures the selected channel to the P164-18 variant.



Configures the selected channel to the P164-38 variant.

Note...

The P164-38 can be set to emulate a P164-18 providing limited control of the picture together with the TBC functions.

3.108 ERIC CONFIGURATION

ERIC

Configures the equipment to drive an ERIC editor system.

TCODE
READER

Not applicable to the MS850, MS851 or MS852 systems.

VIDEO
MIXER

SLUG
CARD

3

3.109 P169 CONFIGURATION

P169

Configures the equipment to drive a P169 switcher.

Not applicable to the MS850, MS851 or MS852 systems.

3.110 P152B CONFIGURATION

3.110.1 LOAD ALL MENUS

LOAD ALL
MENUS

When enabled, the P152B touch-screen controller loads all menus during the reboot sequence.

When disabled, menus are loaded as they are used.

CONFIGURATION MENU

3.110.2 RELOAD SEQUENCES



When enabled, the P152B touch-screen controller reloads the sequences that were in the sequence store when the reboot command was initiated.

3.110.3 JOYSTICK COARSE/FINE



One button toggles between two states, allowing either coarse or fine control from the joystick.

3.110.4 SET BRIGHT



Allows the user to adjust the brightness of the P152B touch-screen display using the spinwheel.

Pressing a second time stores the setting.

3.110.5 SET DATE



Allows the user to adjust the date, as displayed on the P152B touch-screen, using the spinwheel.

Pressing a second time stores the setting.

3.110.6 SET TIME

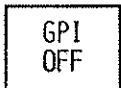


Allows the user to adjust the time, as displayed on the P152B touch-screen, using the spinwheel.

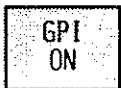
Pressing a second time stores the setting.

3.110.7 GPI OFF/ON

One button with two states



Switches the general purpose interface off or on.



When on, an external input is able to trigger the last run move or sequence. This is the same as pressing the GO TAKE switch manually.

3.110.8 CLICK OFF/ON

One button with two states



When on, it provides audible feedback when a touch-screen button is pressed.



3.110.9 RE-BOOT MAURICE



Reboots the P152B touch-screen controller.

CONFIGURATION MENU

3.111 SYSTEM STATUS

SYSTEM
STATUS

Displays a menu containing a number of parameters about the P164-38. This is used for diagnostic purposes.

3.112 DISK UTILITY

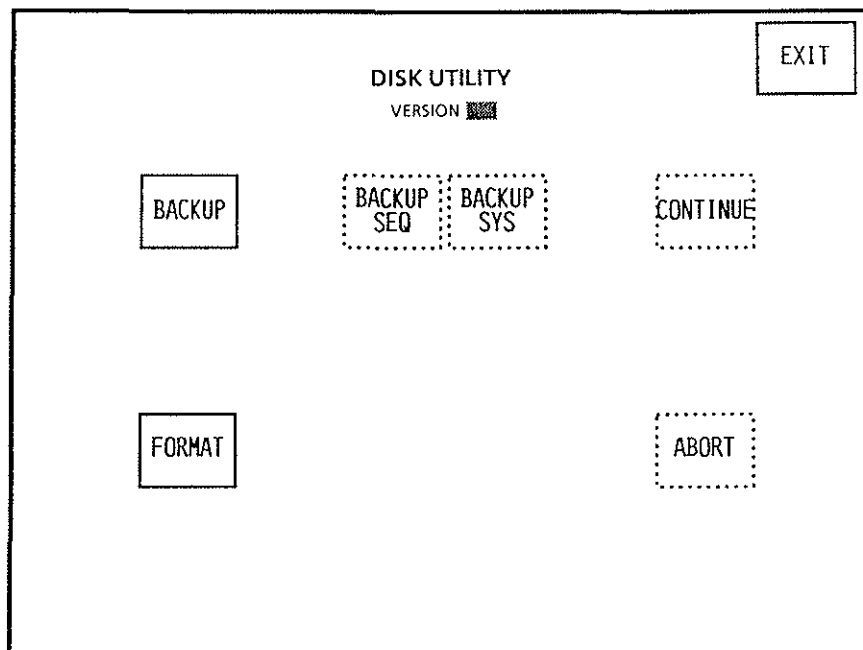
DISC
UTILITY

Transfers the user into the floppy disk utility.

Note...

The user then has 5 seconds to confirm the action by pressing the CONTINUE button otherwise the request is cancelled.

When exiting from the disk utility menu ensure that the system disk is resident in the drive.

3.113 GENERAL

3

The **DISK UTILITY** menu is accessed from the **CONFIGURATION** menu.

It enables the transfer of sequences, moves and effects to disk and also provides a disk copying facility for making back up copies.

The system requires 3½-inch, double-sided, double-density disks with 135 tracks per inch.

On exiting from the disk utility the system reboots from disk, so the system disk must be placed in the disk drive.

DISK UTILITY MENU

3.114 FORMAT

FORMAT

Initiates a format routine. Two further buttons appear, namely CONTINUE and ABORT.
Screen prompts guide the user through formatting a disk.

CONTINUE

Continues with the format routine.

ABORT

Does not start the format routine and returns the user to the disk utility menu.

Note...

If a format routine has been started ABORT will have no effect. To stop the format use the TAKE switches and reboot the system.

Caution...

Do not remove a disk from the disk drive until the COMPLETED message appears.

3.115 BACKUP**BACKUP**

Initiates a backup routine. Four further buttons appear, namely **BACKUP SEQ**, **BACKUP SYS**, **CONTINUE** and **ABORT**.

**BACKUP
SEQ**

Deselect if a backup of sequences is not required.

**BACKUP
SYS**

Deselect if a backup of the system files is not required.

CONTINUE

Continues with the format routine.
Follow the system prompts until the **COMPLETED** message appears.

ABORT

Does not start the format routine and returns the user to the disk utility menu.

Note...

If a backup routine has been started **ABORT** will have no effect. To stop the backup use the **TAKE** switches and reboot the system.

Caution...

Do not remove a disk from the disk drive until the **COMPLETED** message appears.

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3.116 GENERAL

CHANNEL 1	SETUP CODE			ENTER	CANCEL & EXIT
0.					
1	2	3	CLEAR		
4	5	6	BACK SPACE		
7	8	9			
0					

3

The **CODE** menu is accessed from the **SETUP** menu.

It enables the line structure within a field to be encrypted with a user defineable encryption key (a number between 0 and 32767).

The P164-38 must be set to the P164-18 emulation mode in the **CONFIGURATION** menu as encryption requires frame store facilities.

Also, the vertical Y-C DELAY (**INPUT SETUP** menu) must be set to zero.

CODE MENU

3.117 CHANNEL BUTTON

One button with two states.

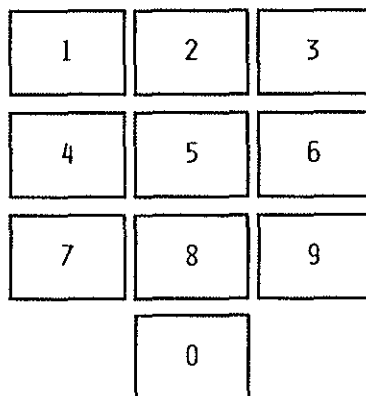


Channel 1 selected for encryption.



Channel 2 selected for encryption.

3.118 NUMERIC KEYBOARD



Allows the user to define the code number for encryption. The range is 00000 to 32767.

A display of the full number is given at the top of the keyboard.

3.119 ENTER



Stores the displayed code number into memory.

3.120 CLEAR

CLEAR

Clears the displayed code number ready for a new number to be inserted.

3.121 BACKSPACE

BACK
SPACE

Clears the last entered digit.

3

3.122 CANCEL AND EXIT

CANCEL
& EXIT

Cancels the current selection within the **CODE** menu and exits to the **INPUT SETUP** menu.

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(Continued...)

FUNCTIONS AND EFFECTS REFERENCECONTENTS (Continued...)

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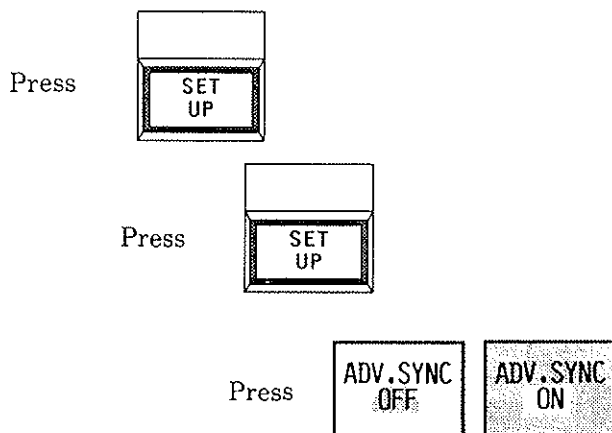
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4.1 ADVANCED SYNC.

From the **EFFECTS** menu:



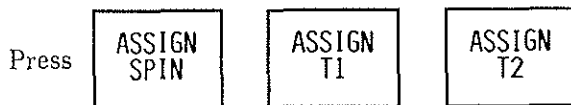
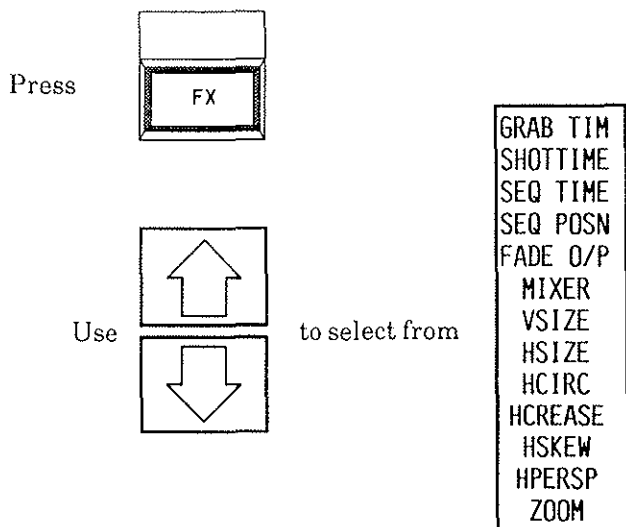
Note...

The advanced sync. signal is available from the rear of the P164-38, it is purely a sync. signal and has no colour burst on it.

ASSIGN CONTROL

4.2 ASSIGN CONTROL

From the **EFFECTS** menu:



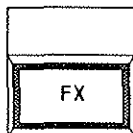
Note...

When assigning controls to a function fine control can be achieved using the spinwheel.

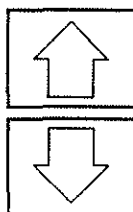
4.3 ASSIGN PRESETS

From the **EFFECTS** menu:

Press



Use



to select

WARPS
WOBBLE
PIX/BLND
FCI/QANT
BDR SIZE
BORD 1
BORD 2
BGND
DP SHAD
DS POS
CROP
I/P KEY

4

Press

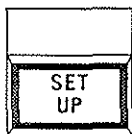


AUTO STANDARD SELECT

4.4 AUTO STANDARD SELECT

From the EFFECTS menu:

Press



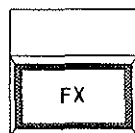
Press



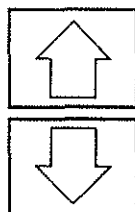
4.5 BACKGROUND

From the **EFFECTS** menu:

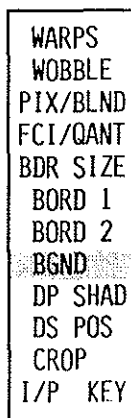
Press



Use



to select



Press



Adjust

BGND LUM ● S₁

BGND HUE ● S₂

BGND SAT ● S₃

Note...

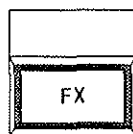
Picture size must be slightly reduced to see the background.

BLINDS

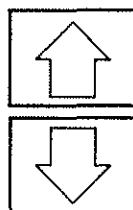
4.6 BLINDS

From the EFFECTS menu:

Press



Use



to select

WARPS
WOBBLE
PIX/BLND
FCI/QANT
BDR SIZE
BORD 1
BORD 2
BGND
DP SHAD
DS POS
CROP
I/P KEY

Press



Adjust

BLINDS



S₂

Note...

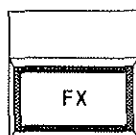
Blinds are turned off by setting the preset value to 0.

Picture must be off-centre to see the effect as the controls are adjusted.

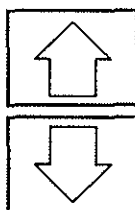
4.7 BORDER 1

From the **EFFECTS** menu:

Press



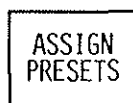
Use



to select



Press



Adjust

BD1 LUM ● S₁

BD1 HUE ● S₂

BD1 SAT ● S₃

Note...

BORD1 must first be set in the **INPUT AND BORDERS** menu.

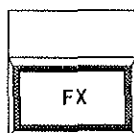
Picture size must be slightly reduced to see borders.

BORDER 2

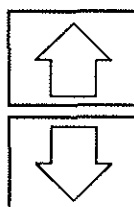
4.8 BORDER 2

From the **EFFECTS** menu:

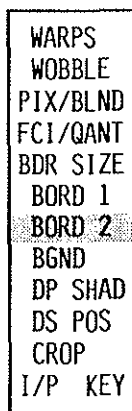
Press



Use



to select



Press



Adjust

BD2 LUM ● S₁

BD2 HUE ● S₂

BD2 SAT ● S₃

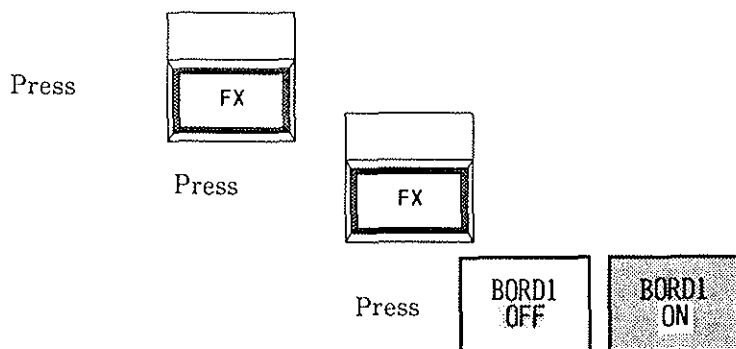
Note...

BORD2 must first be set in the **INPUT AND BORDERS** menu.

Picture size must be slightly reduced to see borders.

4.9 BORDER 1 OFF/ON

From the **EFFECTS** menu:



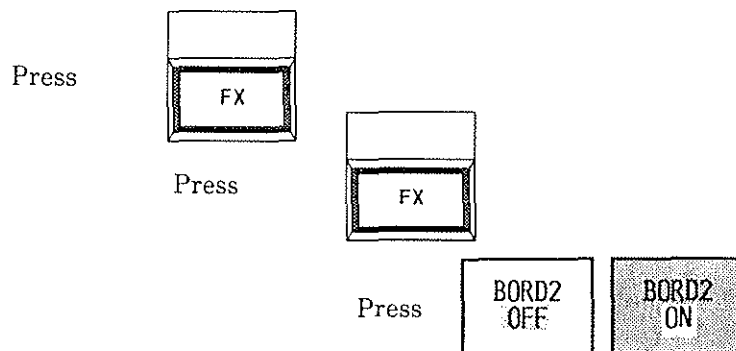
Note...

Picture size must be slightly reduced to see borders.

4

4.10 BORDER 2 OFF/ON

From the **EFFECTS** menu:



Note...

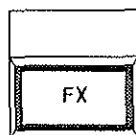
Picture size must be slightly reduced to see borders.

BORDER SIZE

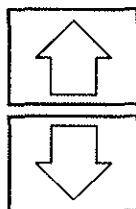
4.11 BORDER SIZE

From the **EFFECTS** menu:

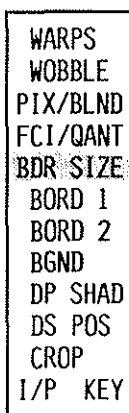
Press



Use



to select



Press



Adjust

BORDER1 ● S₁

BORDER2 ● S₂

Note...

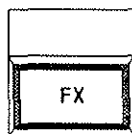
Once a border is set, luminance, hue and saturation can be controlled from the **ASSIGN CONTROLS** menu.

Picture size must be slightly reduced to see borders.

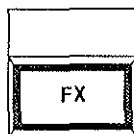
4.12 BYPASS

From the EFFECTS menu:

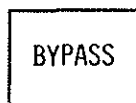
Press



Press



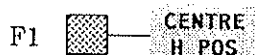
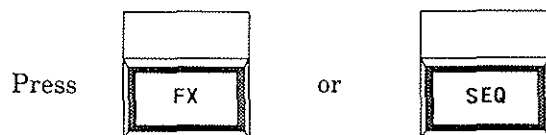
Press



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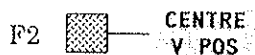
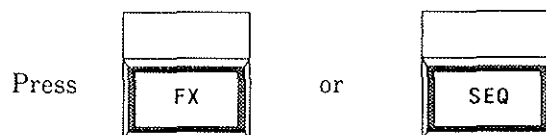
4.13 CENTRE HORIZONTAL POSITION

From the **EFFECTS** menu:



4.14 CENTRE VERTICAL POSITION

From the **EFFECTS** menu:



CHANNEL 1/2

4.15 CHANNEL 1/2

From any main menu:



Note...

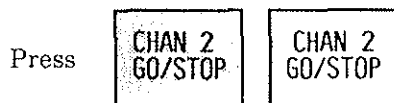
This button toggles between channel 1 and channel 2 in two-channel systems.

4.16 CHANNEL 1/2 GO/STOP OFF/ON

From the EFFECTS menu:



and/or

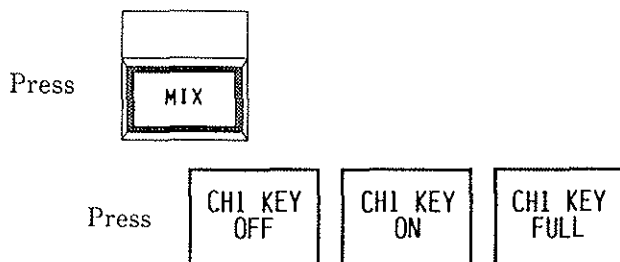


Note...

Channel 2 button only appears in two-channel systems.

4.17 CHANNEL 1 KEY OFF/ON/FULL

From the **EFFECTS** menu:

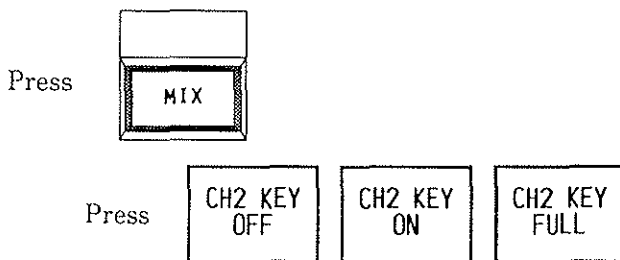


Note...

This function is only applicable to MS851B and MS852B systems.

4.18 CHANNEL 2 KEY OFF/ON/FULL

From the **EFFECTS** menu:



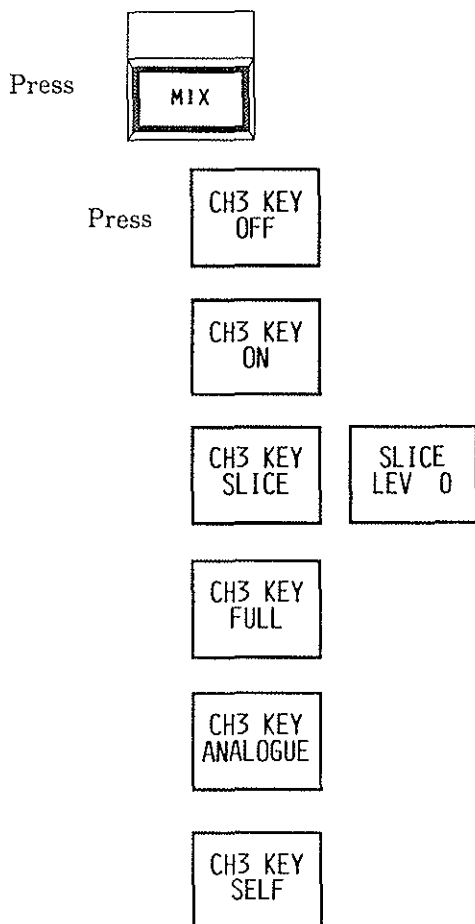
Note...

This function is only applicable to MS851B and MS852B systems.

CHANNEL 3 KEY

4.19 CHANNEL 3 KEY OFF/ON/SLICE/FULL/ANALOGUE/SELF

From the **EFFECTS** menu:



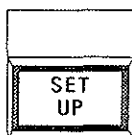
Note...

This function is only applicable to MS851B and MS852B systems.

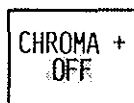
4.20 CHROMA ENHANCE OFF/ON

From the EFFECTS menu:

Press



Press



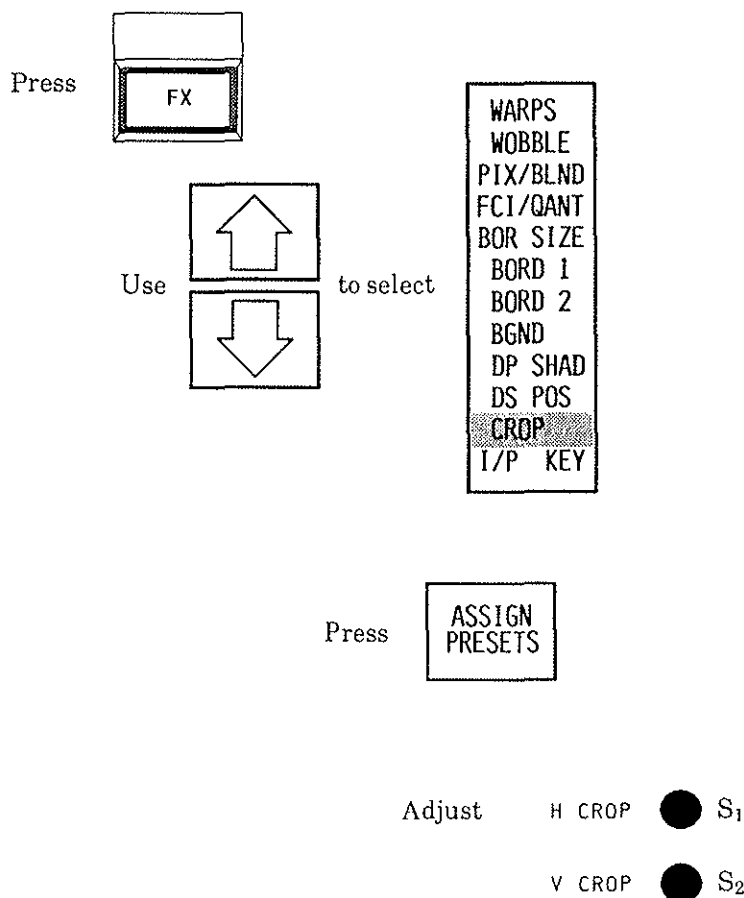
Note...

Chroma enhance has the effect of increasing the chroma bandwidth. It does not affect the chroma level of the signal.

CROP

4.21 CROP

From the **EFFECTS** menu:



Note...

Crop must first be set in the **SETUP** menu.

Generally used with set timing.

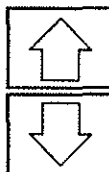
4.22 DELETE FILE

From the EFFECTS menu:

Press

SEQ
LIB

Select the file
to be deleted



SEQUENCE DIRECTORY	
File	date
PERSP:AB	01/05/90
VPERS-BA	01/05/90
V-BOX:AB	01/05/90
BOUNCE-A	01/05/90
ANG-SLID	01/05/90
H-BOX:BA	01/05/90
PAGETURN	01/05/90
DROP-BA	01/05/90
HPUSH:AB	01/05/90
HPUSH:BA	01/05/90

4

Press

DELETE
FILE

Press

CONFIRM
DELETE

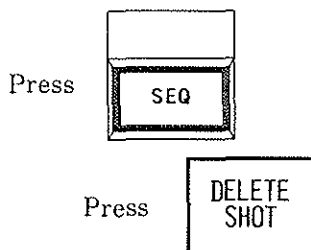
Note...

The deletion must be confirmed within five seconds.

DELETE SHOT/DISK UTIL

4.23 DELETE SHOT

From the **EFFECTS** menu:

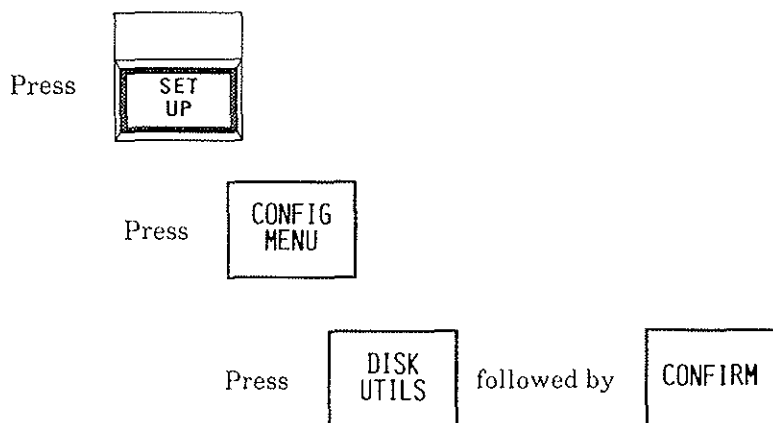


Note...

There must be shots present in the sequence otherwise the **DELETE SHOT** button will not appear.

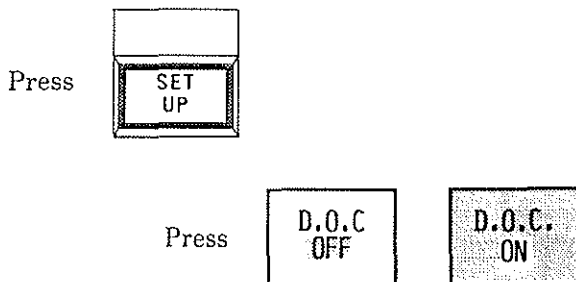
4.24 DISK UTILITY

From the **EFFECTS** menu:



4.25 D.O.C. OFF/ON

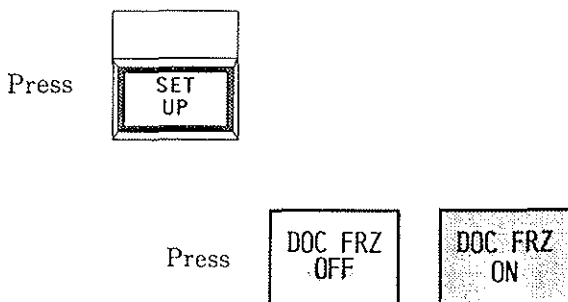
From the EFFECTS menu:



4

4.26 D.O.C. FREEZE OFF/ON

From the EFFECTS menu:

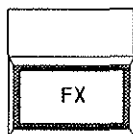


DROPSHADOW

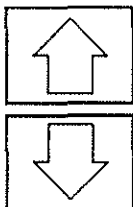
4.27 DROPSHADOW

From the **EFFECTS** menu:

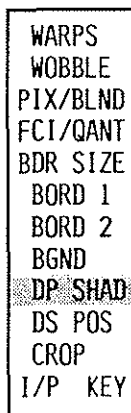
Press



Use



to select



Press



Adjust

DPS LUM ● S₁

DPS HUE ● S₂

DPS SAT ● S₃

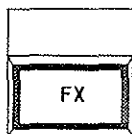
Note...

Dropshadow must first be set in the **SETUP** menu.

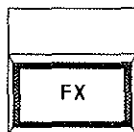
4.28 DROPSHADOW OFF/ON

From the **EFFECTS** menu:

Press



Press



Press

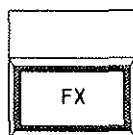


DROPSHADOW POSITION

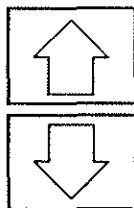
4.29 DROPSHADOW POSITION

From the **EFFECTS** menu:

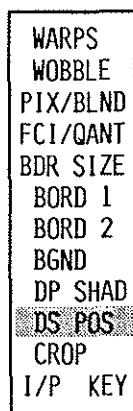
Press



Use



to select



Press



Adjust

DS HPOS



S₁

DS VPOS



S₂

Note...

To fill in the diagonal between picture and shadow S2 must be set to maximum.

4.30 EFFECTS/WIPE

From the EFFECTS menu:

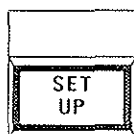
Press



4.31 ENCRYPT CODE

From the EFFECTS menu:

Press



Press



Press



Enter the new code
using the numeric
keyboard

Press

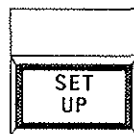


ERROR FREEZE OFF/ON

4.32 ERROR FREEZE OFF/ON

From the EFFECTS menu:

Press

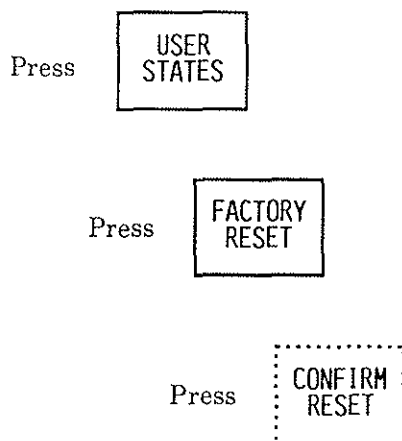


Press



4.33 FACTORY RESET

From the EFFECTS menu:



4

Note...

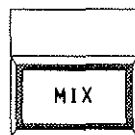
Using the factory reset overrides any user adjustments made with the controller, and should only be used if, somehow, the data in the state stores has become corrupted.

FADE OUTPUT

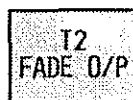
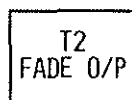
4.34 FADE OUTPUT

From the **EFFECTS** menu:

Press



Press



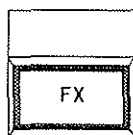
Note...

This function is only applicable to MS851B and MS852B systems.

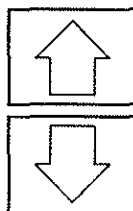
4.35 FALSE COLOUR IMAGE

From the EFFECTS menu:

Press



Use



to select

WARPS
 WOBBLE
 PIX/BLND
 FCI/QANT
 BDR SIZE
 BORD 1
 BORD 2
 BGND
 DP SHAD
 DS POS
 CROP
 I/P KEY

Press

ASSIGN
 PRESETS

Adjust

FCI



FLIP/FOLD

4.36 FLIP OFF/ON

From the **EFFECTS** menu:

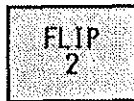
Press



to get



or



or



Note...

The **FLIP** function can also be set from the **SEQUENCE EDIT** menu.

4.37 FOLD

From the **EFFECTS** menu:

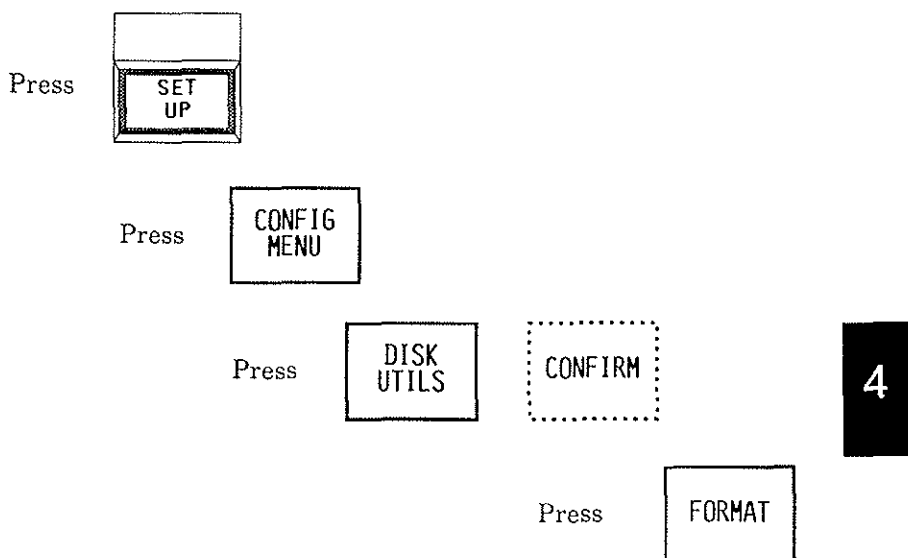
Press



Press, followed by the appropriate direction arrow button.

4.38 FORMAT

From the **EFFECTS** menu:



4.39 FREEZE BORDER


From the **EFFECTS** menu:





FREEZE



4.40 FREEZE INPUT

From the **EFFECTS** menu:

Press 

Press  to get 

or


Press  to get 

Note...

Either **FIELD** or **FREEZE** will appear when the **FREEZE I/P** button is pressed depending on the last use-state.

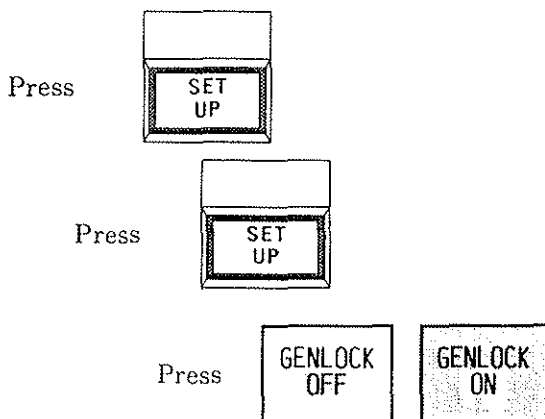
4.41 FREEZE OUTPUT

From the **EFFECTS** menu:

Press 

4.42 GENLOCK OFF/ON

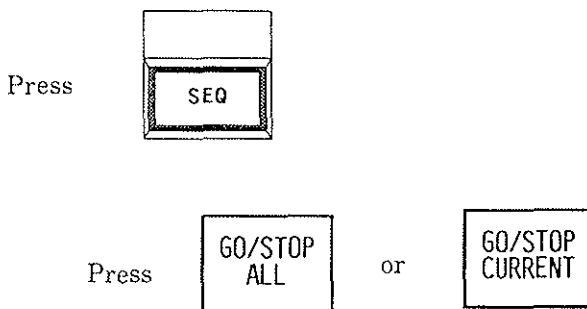
From the **EFFECTS** menu:



4

4.43 GO/STOP ALL/CURRENT

From the **EFFECTS** menu:

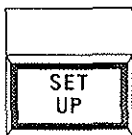


GPI OFF/ON

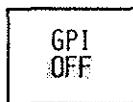
4.44 GPI OFF/ON (GENERAL PURPOSE INTERFACE)

From the EFFECTS menu:

Press



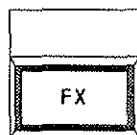
Press



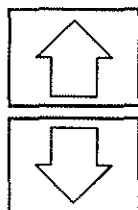
4.45 GRAB TIME

From the **EFFECTS** menu:

Press



Use



to select



4

Select

ASSIGN
SPIN

or

ASSIGN
T1

or

ASSIGN
T2

Note...

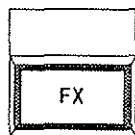
Use in conjunction with the **FREEZE INPUT** function in the **EFFECTS** menu.

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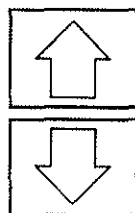
4.46 HORIZONTAL CIRCLE

From the **EFFECTS** menu:

Press



Use



to select

GRAB.TIM
SHOTTIME
SEQ TIME
SEQ POSN
FADE O/P
MIXER
VSIZE
HSIZE
HCIRC
HCREASE
HSKEW
HPERSP
ZOOM

4

Select

ASSIGN
SPIN

or

ASSIGN
T1

or

ASSIGN
T2

Note...

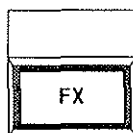
When using the HCIRC function assigning the spinwheel gives fine control.

HORIZONTAL CREASE

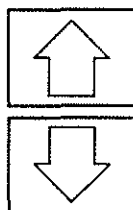
4.47 HORIZONTAL CREASE

From the **EFFECTS** menu:

Press



Use



to select

GRAB TIM
SHOTTIME
SEQ TIME
SEQ POSN
FADE O/P
MIXER
VSIZE
HSIZE
HCIRC
HCREASE
HSKEW
HPERSP
ZOOM

Select

ASSIGN
SPIN

or

ASSIGN
T1

or

ASSIGN
T2

Note...

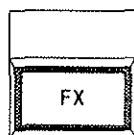
When using the HCREASE function assigning the spinwheel gives fine control.

See also WARPS.

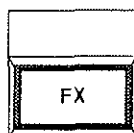
4.48 HORIZONTAL CROP/TIME

From the EFFECTS menu:

Press



Press



Press

F1



SET H
CROP/TIME

4

Note...

This function is also available in the SEQUENCE EDIT menu.

H INVERT/H MIRROR

4.49 HORIZONTAL INVERT

From the **EFFECTS** menu:

Press



4.50 HORIZONTAL MIRROR

From the **EFFECTS** menu:

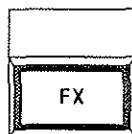
Press



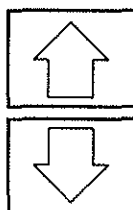
4.51 HORIZONTAL PERSPECTIVE

From the EFFECTS menu:

Press



Use



to select

GRAB TIM
SHOTTIME
SEQ TIME
SEQ POSN
FADE O/P
MIXER
VSIZE
HSIZE
HCIRC
HCREASE
HSKEW
HPERSP
ZOOM

4

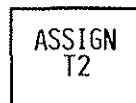
Select



or



or



Note...

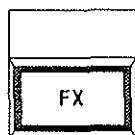
When using the HPERSP function assigning the spinwheel gives fine control.
See also WARPS.

HORIZONTAL SIZE

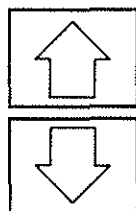
4.52 HORIZONTAL SIZE

From the **EFFECTS** menu:

Press



Use



to select

GRAB TIM
SHOTTIME
SEQ TIME
SEQ POSN
FADE O/P
MIXER
VSIZE
HSIZE
HCIRC
HCREASE
HSKEW
HPERSP
ZOOM

Select

ASSIGN
SPIN

or

ASSIGN
T1

or

ASSIGN
T2

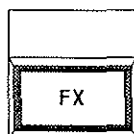
Note...

When using the HSIZE function assigning the spinwheel gives fine control.

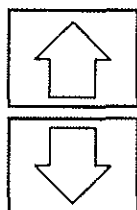
4.53 HORIZONTAL SKEW

From the EFFECTS menu:

Press



Use



to select

GRAB TIM
SHOTTIME
SEQ TIME
SEQ POSN
FADE O/P
MIXER
VSIZE
HSIZE
HCIRC
HCREASE
HSKEW
HPERSP
ZOOM

4

Select

ASSIGN
SPIN

or

ASSIGN
T1

or

ASSIGN
T2

Note...

When using the HSKEW function assigning the spinwheel gives fine control.

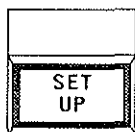
See also WARPS.

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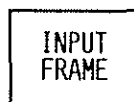
4.54 INPUT FIELD/FRAME

From the EFFECTS menu:

Press



Press



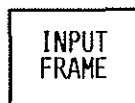
to get



or



to get

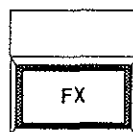


INPUT KEY

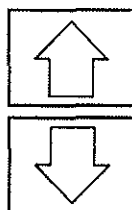
4.55 INPUT KEY

From the **EFFECTS** menu:

Press



Use



to select

WARPS
WOBBLE
PIX/BLND
FCI/QANT
BDR SIZE
BORD 1
BORD 2
BGND
DP SHAD
DS POS
CROP
I/P KEY

Press

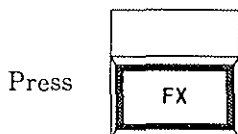
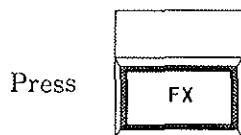
ASSIGN
PRESETS

Adjust KEY DELY ● S₁

Adjust KEY LEV ● S₂

4.56 INPUT KEY OFF/ON

From the **EFFECTS** menu:



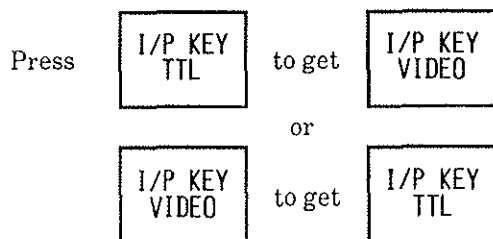
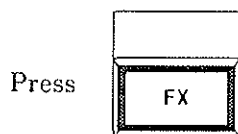
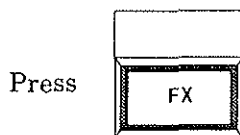
Note...

Turns the key function on and off. Once off, switching on will restore the last set key parameters.

INPUT KEY TTL/INSERT

4.57 INPUT KEY TTL/VIDEO

From the **EFFECTS** menu:

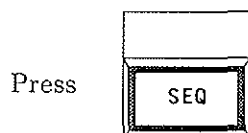


Note...

Either KEY VIDEO or KEY TTL will appear when the button is pressed depending on the last use state.

4.58 INSERT SHOT

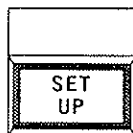
From the **EFFECTS** menu:



4.59 JOYSTICK COARSE/FINE

From the **EFFECTS** menu:

Press



Press



Press



to get



or

Press



to get

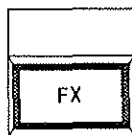


JOYSTICK CONTROL

4.60 JOYSTICK CONTROL

From the EFFECTS menu:

Press



Press

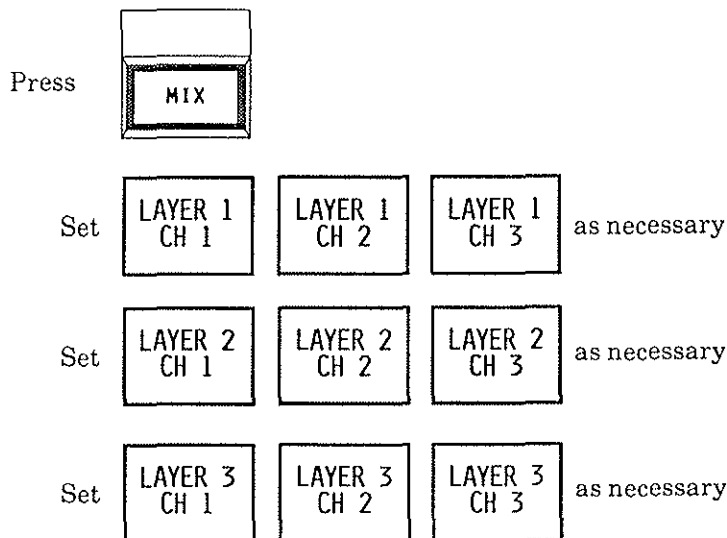
F3



POSITION
& ZOOM

4.61 LAYER CONTROLS

From the **EFFECTS** menu:



4

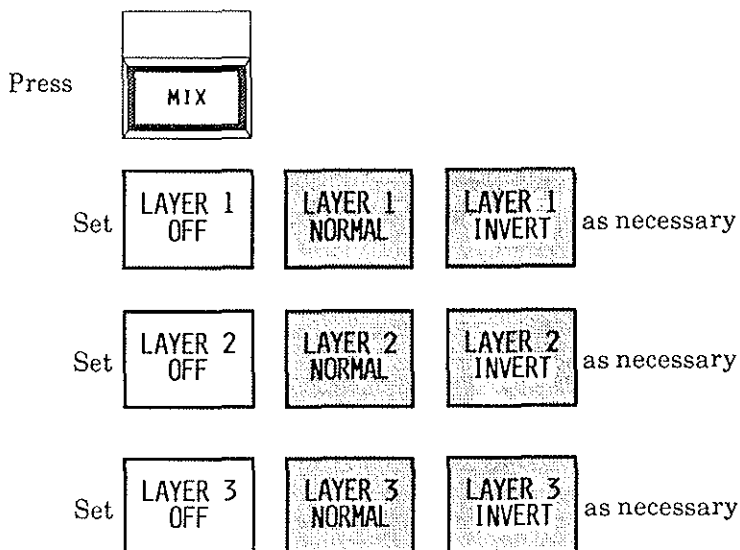
Note...

This function is only applicable to MS851B and MS852B systems.

LAYERS OFF/NORMAL/INV

4.62 LAYERS OFF/NORMAL/INVERT

From the EFFECTS menu:



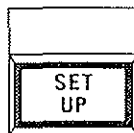
Note...

This function can be assigned to either T1 or T2 as necessary.
It is only applicable to MS851 and MS852 systems.

4.63 LOAD ALL MENUS

From the EFFECTS menu:

Press



Press



Press

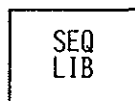


LOAD SEQUENCE

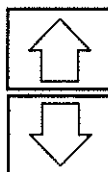
4.64 LOAD SEQUENCE

From the **EFFECTS** menu:

Press



Select the file
to be loaded



SEQUENCE DIRECTORY	
File	date
PERSP:AB	29/03/90
VPERS-BA	29/03/90
V-BOX:AB	29/03/90
BOUNCE-A	29/03/90
ANG-SLID	29/03/90
H-BOX:BA	29/03/90
PAGETURN	29/03/90
DROP-BA	29/03/90
HPUSH:AB	01/03/90
HPUSH:BA	01/03/90

Press

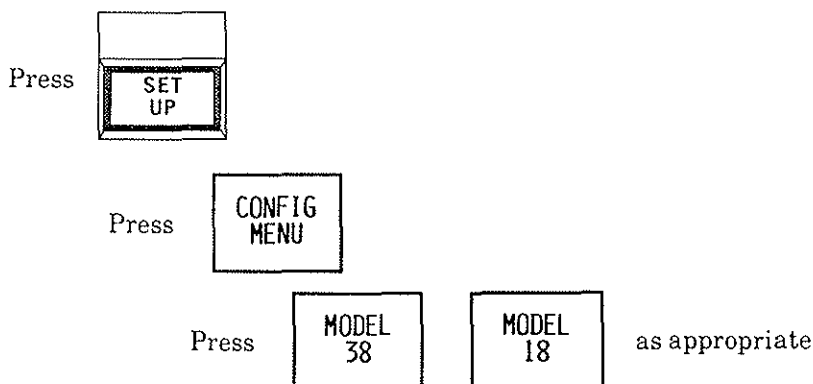


Note...

Keeping the **LOAD SEQUENCE** button pressed will load contiguous files from the sequence directory, until nine sequences are loaded. Pressing the button further will overwrite the ninth file.

4.65 MODEL 38/18

From the **EFFECTS** menu:



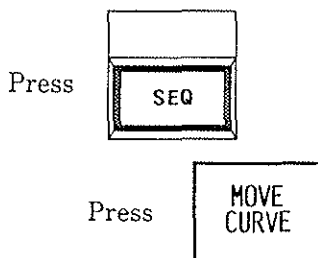
4

Note...

If required, a model 38 unit can be set to emulate a model 18 to provide frame store and TBC functions.

4.66 MOVE CURVE

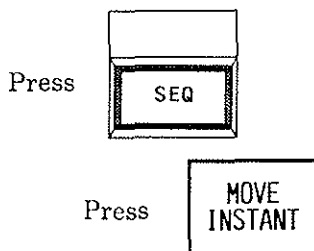
From the **EFFECTS** menu:



MOVE

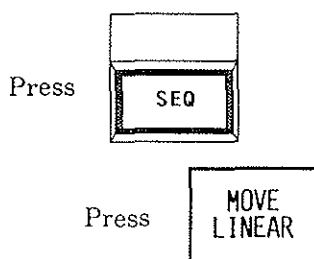
4.67 MOVE INSTANT

From the **EFFECTS** menu:



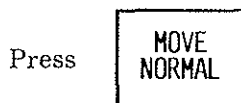
4.68 MOVE LINEAR

From the **EFFECTS** menu:



4.69 MOVE NORMAL

From the **EFFECTS** menu:



4.70 MOVE TO START

From the **EFFECTS** menu:

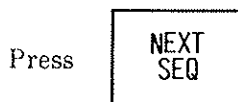
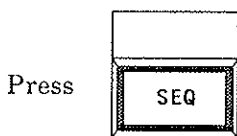
Press



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4.71 NEXT SEQUENCE

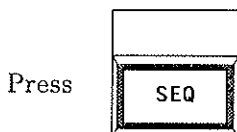
From the **EFFECTS** menu:



4

4.72 NEXT SHOT

From the **EFFECTS** menu:



Note...

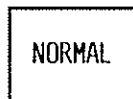
The **NEXT SHOT** button will not appear unless a sequence is currently selected.

NORMAL/NTSC

4.73 NORMAL

From the **EFFECTS** menu:

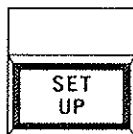
Press



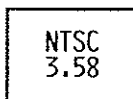
4.74 NTSC 3.58

From the **EFFECTS** menu:

Press



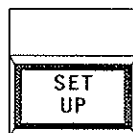
Press



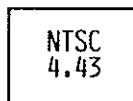
4.75 NTSC 4.43

From the **EFFECTS** menu:

Press



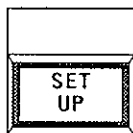
Press



4.76 P164 1/2 CHANNEL

From the EFFECTS menu:

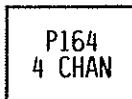
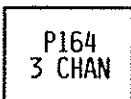
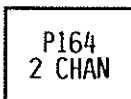
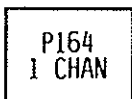
Press



Press



Select



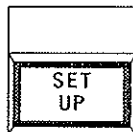
as appropriate

4

4.77 P164 CONFIGURATION

From the EFFECTS menu:

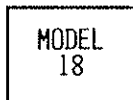
Press



Press



Press



as appropriate

Note...

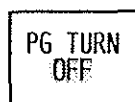
If required, a model 38 unit can be set to emulate a model 18 to provide frame store and TBC functions.

PAGE TURN

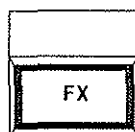
4.78 PAGE TURN

From the **EFFECTS** menu:

Press



Press



Press

F4



WARPS &
CIRCLE

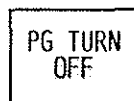
Use the joystick to
manipulate the
page turn parameters



4.79 PAGE TURN OFF/ON

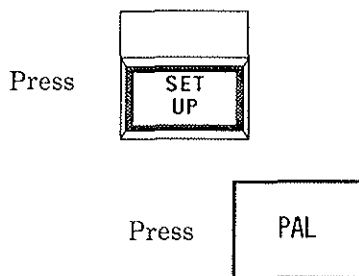
From the **EFFECTS** menu:

Press



4.80 PAL

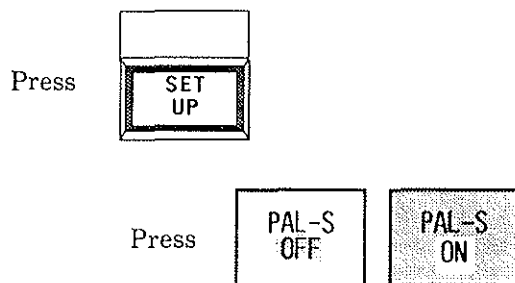
From the **EFFECTS** menu:



4

4.81 PAL-S (SIMPLE PAL) OFF/ON

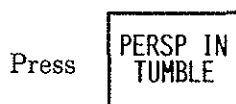
From the **EFFECTS** menu:



PERSP IN TUMBLE/PIX

4.82 PERSPECTIVE IN TUMBLE

From the **EFFECTS** menu:

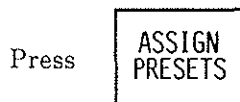
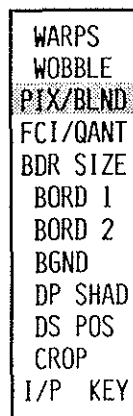
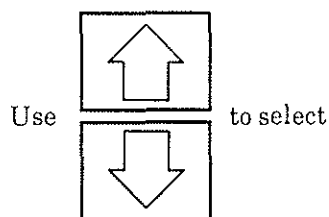
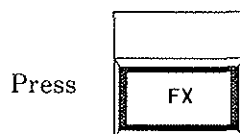


Note...

Used in conjunction with **TUMBLE**.

4.83 PIXELLATION

From the **EFFECTS** menu:



Adjust

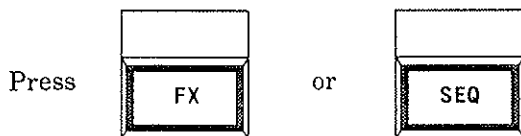
PIX



S₁

4.84 POSITION AND ZOOM

From the **EFFECTS** menu:



Use the joystick to
manipulate the
picture



Note...

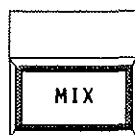
See also JOYSTICK CONTROL.

PREVIEW

4.85 PREVIEW BUTTONS

From the **EFFECTS** menu:

Press



Select from

F1



PREVIEW
PROGRAM

F2



PREVIEW
CH1

F3



PREVIEW
CH2

F4



PREVIEW
CH3

F5



PREVIEW
BGND VID

F6



PREVIEW
KEY1

F7



PREVIEW
KEY2

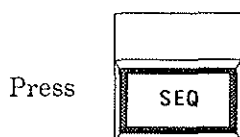
F8



PREVIEW
KEY3

4.86 PREVIOUS SHOT

From the **EFFECTS** menu:



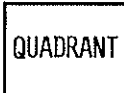
Note...




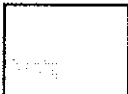

The PREVIOUS SHOT button will not appear unless a sequence is currently selected and there is a previous shot to view within the sequence.

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4.87 QUADRANT

From the **EFFECTS** menu:

Press 

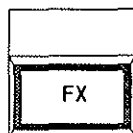
Press     

QUANTISATION

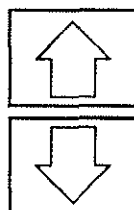
4.88 QUANTISATION

From the **EFFECTS** menu:

Press



Use



to select

WARPS
WOBBLE
PIX/BLND
FXI/QANT
BDR SIZE
BORD 1
BORD 2
BGND
DP SHAD
DS POS
CROP
I/P KEY

Press

ASSIGN
PRESETS

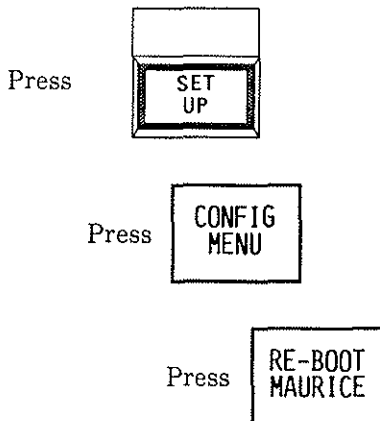
Adjust

QUANT



4.89 REBOOT MAURICE

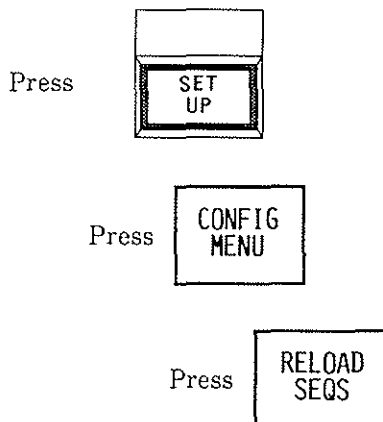
From the **EFFECTS** menu:



4

4.90 RELOAD SEQUENCES

From the **EFFECTS** menu:

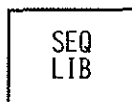


REMOVE SEQ/REPLACE


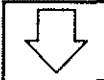
4.91 REMOVE SEQUENCE

From the **EFFECTS** menu:

Press



Select the sequence
to be removed

	SEQUENCE STORE	
	SEQ NAME	SHOTS
	HPUSH:AB	6
	NO SEQ.	0
	NO SEQ.	0
	NO SEQ.	0
	NO SEQ.	0
	NO SEQ.	0
	NO SEQ.	0
	NO SEQ.	0

Press



4.92 REPLACE SHOT

From the **EFFECTS** menu:

Press



Press

F7



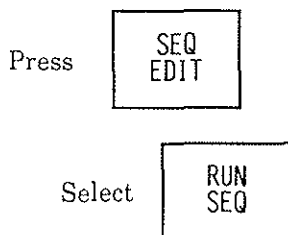
**REPLACE
SHOT**

Note...

There must be shots present in the sequence otherwise the REPLACE SHOT button will not appear.

4.93 RUN SEQUENCE

From the EFFECTS menu:



Note...

There must be shots or a sequence present otherwise the RUN SEQUENCE button will not appear.

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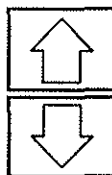
4.94 SAVE SEQUENCE

From the **EFFECTS** menu:

Press

SEQ
LIB

Select the sequence
to be saved to disk



SEQUENCE STORE	
SEQ NAME	SHOTS
HPUSH:AB	6
NO SEQ.	0
NO SEQ.	0
NO SEQ.	0
NO SEQ.	0
NO SEQ.	0
NO SEQ.	0
NO SEQ.	0

4

Press

SAVE
SEQ

this displays
the keyboard

Title the sequence as
required using the
alphanumeric buttons

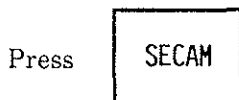
Press

ENTER

SECAM/SEQ FILES

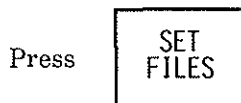
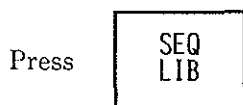
4.95 SECAM

From the **EFFECTS** menu:



4.96 SEQUENCE FILES

From the **EFFECTS** menu:



4.97 SEQUENCE MASKS

From the **EFFECTS** menu:

Press SEQ
MASK

Select the
required
sequence

F1 HPUSH:AB

F2

⋮

F8

Select the
required
masks

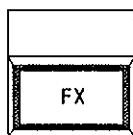
BORDERS	PIX FCI QUANT	CROP	FLIPS TUMBLES FREEZE
I/P SETUP	I/P SELECT	BGROUND	BIM

SEQUENCE POSITION

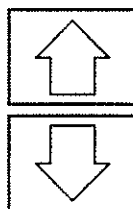
4.98 SEQUENCE POSITION

From the **EFFECTS** menu:

Press



Use



to select

GRAB TIM
SHOTTIME
SEQ TIME
SEQ POSN
FADE O/P
MIXER
VSIZ
HSIZ
HCIRC
HCREASE
HSKEW
HPERSPT
ZOOM

Select

ASSIGN
SPIN

or

ASSIGN
T1

or

ASSIGN
T2

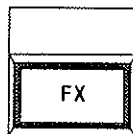
Note...

It is usual to assign the T-bars to this function. The spinwheel control is too fine.

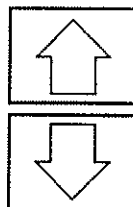
4.99 SEQUENCE TIME

From the EFFECTS menu:

Press



Use

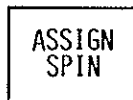


to select

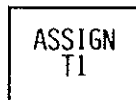
GRAB TIM
SHOTTIME
SEQ TIME
SEQ POSN
FADE O/P
MIXER
VSIZE
HSIZE
HCIRC
HCREASE
HSKEW
HPERSPT
ZOOM

4

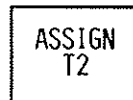
Select



or



or



Note...

It is usual to assign the T-bars to this function. The spinwheel control is too fine.

SEQUENCE TIME OFF/ON

4.100 SEQUENCE TIME OFF/ON

From the EFFECTS menu:

Press



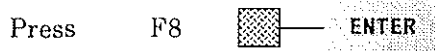
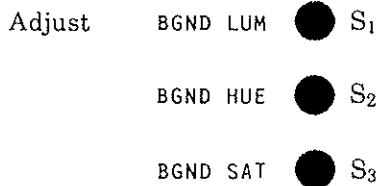
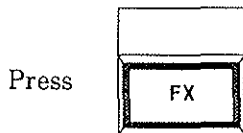
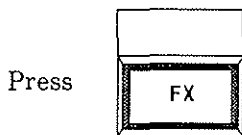
as appropriate

Note...

This button assigns the spinwheel control.

4.101 SET BACKGROUND

From the **EFFECTS** menu:



Note...

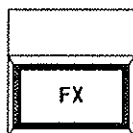
Once a background is set, changes to luminance, hue and saturation can be made from the **ASSIGN CONTROLS** menu.

SET BORDER 1

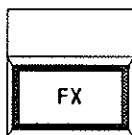
4.102 SET BORDER 1

From the **EFFECTS** menu:

Press

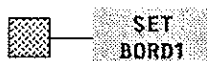


Press



Press

F5



Adjust



to set border width

Whilst setting border 1, T₂ adjusts border 2 width.

Presets control only the border being set.

Adjust

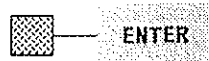
LUM ● S₁

HUE ● S₂

SAT ● S₃

Press

F8

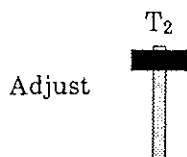
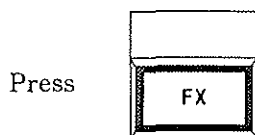


Note...

Once a border is set, changes in size, luminance, hue and saturation can be made from the **ASSIGN CONTROLS** or **SEQUENCE EDIT** menus.

4.103 SET BORDER 2

From the **EFFECTS** menu:



to set border width

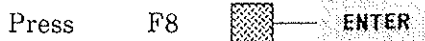
Whilst setting border 2, T₁ adjusts border 1 width.

Presets control only the border being set.

Adjust LUM ● S₁

HUE ● S₂

SAT ● S₃



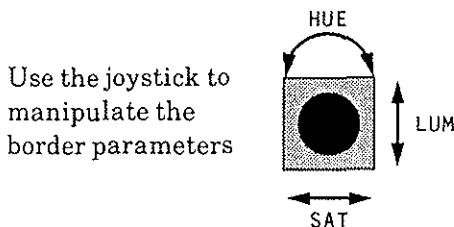
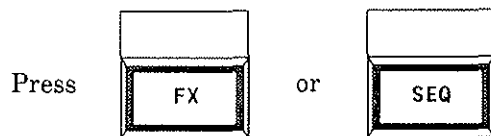
Note...

Once a border is set, changes in size, luminance, hue and saturation can be made from the **ASSIGN CONTROLS** or **SEQUENCE EDIT** menus.

SET BORDERS

4.104 SET BORDERS

From the **EFFECTS** menu:



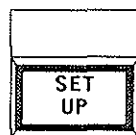
Note...

Once a border is set, changes to luminance, hue and saturation can be made from the **ASSIGN CONTROLS** or **SEQUENCE EDIT** menus.

4.105 SET BRIGHT

From the **EFFECTS** menu:

Press



Press



Press



Adjust



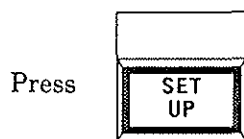
Press



SET COLOUR

4.106 SET COLOUR

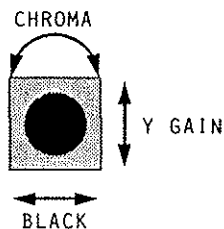
From the **EFFECTS** menu:



Press F4



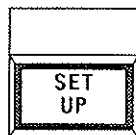
Use the joystick to
manipulate the
colour parameters



4.107 SET CROP

From the **EFFECTS** menu:

Press



Press

F1



SET
CROP

Adjust

H CROP



S₁

V CROP



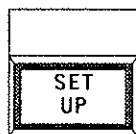
S₂

SET DATE

4.108 SET DATE

From the **EFFECTS** menu:

Press



Press



Press



Adjust



until the correct date
is displayed on the
touch-screen

Press



4.109 SET DROPOUT

From the **EFFECTS** menu:



Press

F7



4

Adjust

DROP LEV ● S₁

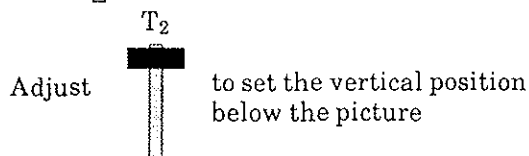
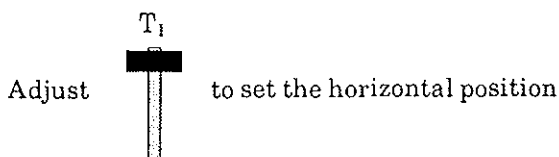
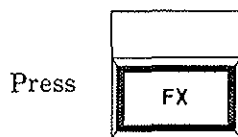
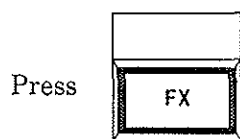
Note...


If no D/O RF signal is present then DROP LEV should be set to 100.

SET DROPshadow


4.110 SET DROPshadow

From the **EFFECTS** menu:



Adjust DPS LUM  S₁

The image shows a circular knob with a black center and a white outer ring.

DPS HUE  S₂

The image shows a circular knob with a black center and a white outer ring.

DPS SAT  S₃

The image shows a circular knob with a black center and a white outer ring.



Note...

To fill in the diagonal between picture and shadow T2 must be set to maximum. Once set, dropshadow can be adjusted from the **ASSIGN CONTROLS** menu.

4.111 SET FILES

From the **EFFECTS** menu:

Press

SEQ
LIB

Press

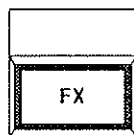
SEQ
FILES

SET HORIZONTAL CROP

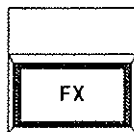
4.112 SET HORIZONTAL CROP

From the **EFFECTS** menu:

Press



Press



Press

F1



SET H
CROPTIME

Adjust

H CROP



S₁

I/P HPOS



S₂

Press

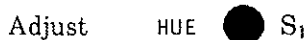
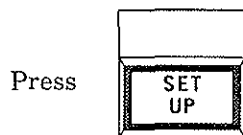
F8



ENTER

4.113 SET HUE (NTSC only)

From the EFFECTS menu:



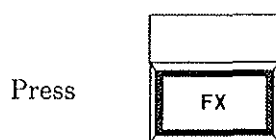
Note...

The HUE control has no effect on PAL or SECAM systems.

SET INPUT KEY

4.114 SET INPUT KEY

From the EFFECTS menu:



Adjust

KEY DELY ● S₁

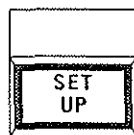
KEY LEV ● S₂



4.115 SET LEVELS

From the **EFFECTS** menu:

Press



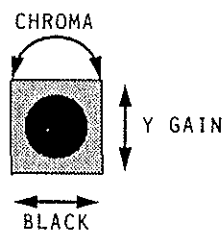
Press

F4



4

Use the joystick to
manipulate the
border parameters



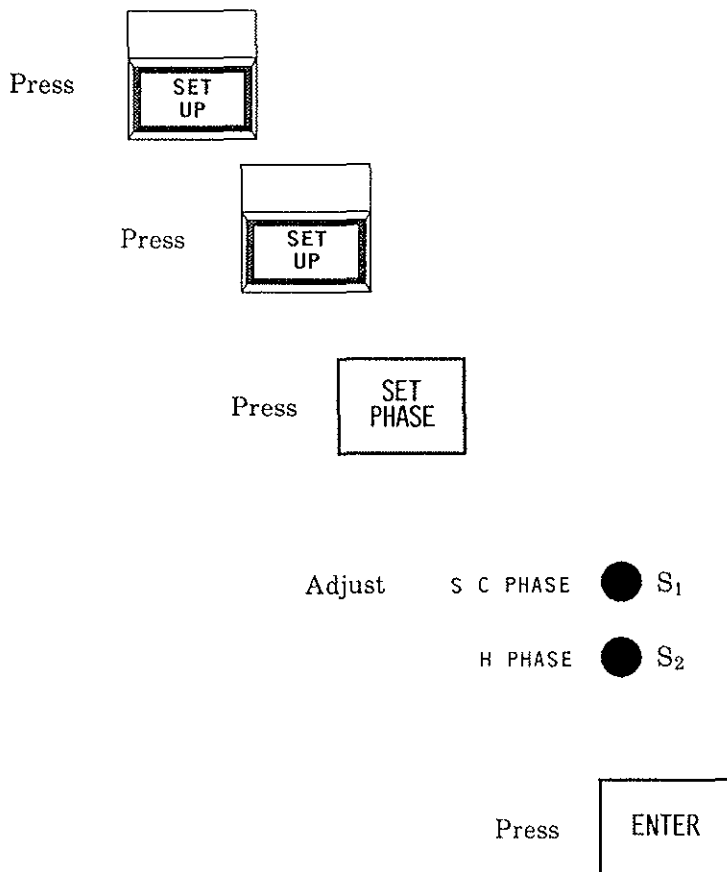
Note...

For all these parameters 0 is the calibrated setting.

SET PHASE

4.116 SET PHASE

From the **EFFECTS** menu:



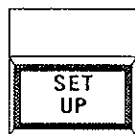
Note...

The calibrated setting is 0.

4.117 SET TIME

From the **EFFECTS** menu:

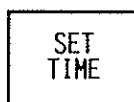
Press



Press



Press



Adjust



until the correct time
is displayed on the
touch-screen

Press

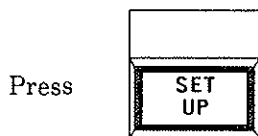


4

SET TIMING

4.118 SET TIMING

From the **EFFECTS** menu:



Adjust I/P HPOS ● S₁

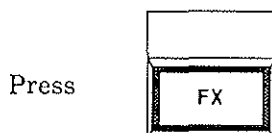
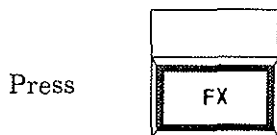
I/P VPOS ● S₂

Note...

The calibrated setting is 0.

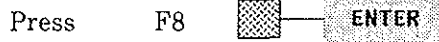
4.119 SET VERTICAL CROP/TIME

From the **EFFECTS** menu:



Adjust V CROP ● S₁

I/P VP0S ● S₂

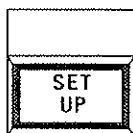


SET YC DELAY

4.120 SET YC DELAY

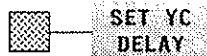
From the **EFFECTS** menu:

Press



Press

F3



Adjust

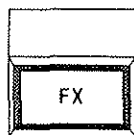
Y-C HOR ● S₁

Y-C VER ● S₂

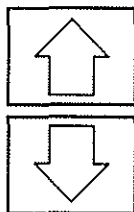
4.121 SHOT TIME

From the **EFFECTS** menu:

Press



Use



to select

GRAB TIM
SHOT TIME
 SEQ TIME
 SEQ POSN
 FADE O/P
 MIXER
 VSIZE
 HSIZE
 HCIRC
 HCREASE
 HSKW
 HPERSP
 ZOOM

4

Select

ASSIGN
SPIN

or

ASSIGN
T1

or

ASSIGN
T2

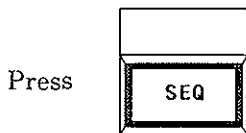
Note...

It is usual to assign the spinwheel to this function.

SHOW CURRENT/SIZE & PER

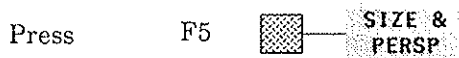
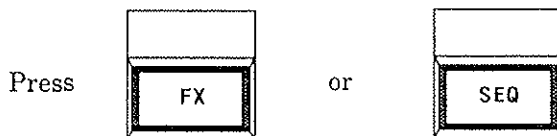
4.122 SHOW CURRENT

From the **EFFECTS** menu:

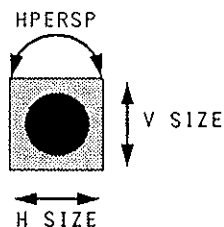


4.123 SIZE AND PERSPECTIVE

From the **EFFECTS** menu:



Use the joystick to
manipulate the
picture



4.124 SLIDE

From the **EFFECTS** menu:

Press

4.125 SYSTEM STATUS

From the **EFFECTS** menu:

Press



Press



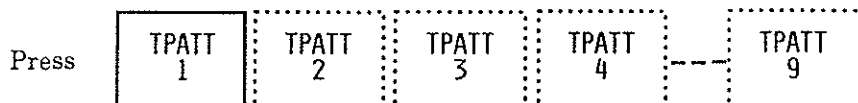
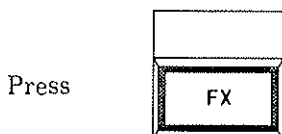
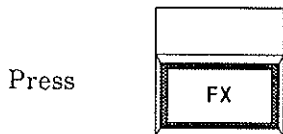
Press



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4.126 TEST PATTERNS

From the **EFFECTS** menu:



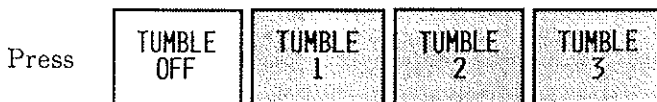
4

Note...

More test patterns may become available later.

4.127 TUMBLE

From the **EFFECTS** or **SEQUENCE EDIT** menu:



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4.128 USER STATES

From the **EFFECTS** menu:

Press

USER
STATES

P164 SAVE USER STATES

Press

USER
STATE 1

USER
STATE 2

USER
STATE 3

USER
STATE 4

to store parameters
in the desired state
store

4

P164 RECALL USER STATES

Press

USER
STATE 1

USER
STATE 2

USER
STATE 3

USER
STATE 4

to recall parameters
from the desired state
store.

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4.129 VERTICAL INVERT

From the **EFFECTS** menu:

Press

**4****4.130 VERTICAL MIRROR**

From the **EFFECTS** menu:

Press

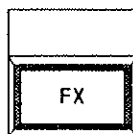


VERTICAL SIZE

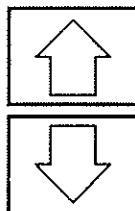
4.131 VERTICAL SIZE

From the **EFFECTS** menu:

Press



Use



to select

GRAB TIM
SHOTTIME
SEQ TIME
SEQ POSN
FADE O/P
MIXER
VSIZE
HSIZE
HCIRC
HCREASE
HSKEW
HPERSP
ZOOM

Select

ASSIGN
SPIN

or

ASSIGN
T1

or

ASSIGN
T2

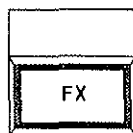
Note...

The spinwheel gives fine control.

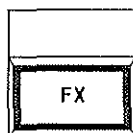
4.132 VIDEO

From the **EFFECTS** menu:

Press



Press



Select input
as required

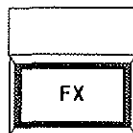


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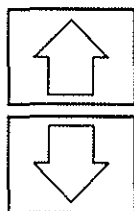
4.133 WARPS

From the EFFECTS menu:

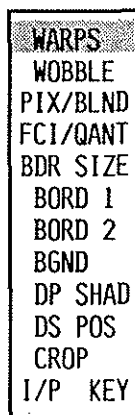
Press



Use



to select



Press



Adjust

HPERSP ● S₁

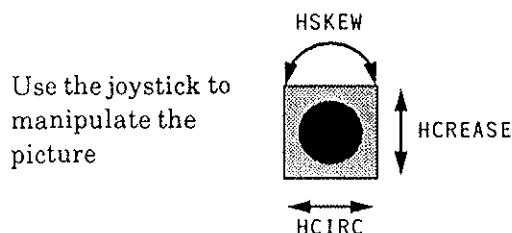
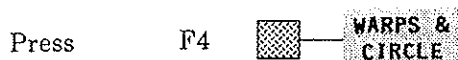
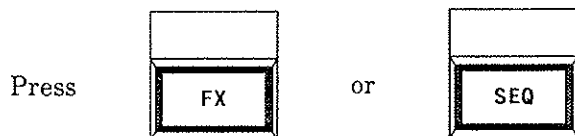
HSKEW ● S₂

HCREASE ● S₃

WARPS AND CIRCLE/WIPES

4.134 WARPS AND CIRCLE

From the **EFFECTS** menu:

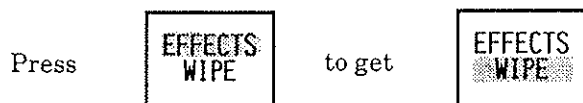


Note...

See also **WARPS** and **HORIZONTAL CIRCLE**

4.135 WIPE

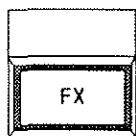
From the **EFFECTS** menu:



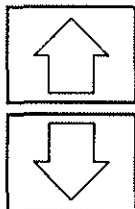
4.136 WOBBLE

From the **EFFECTS** menu:

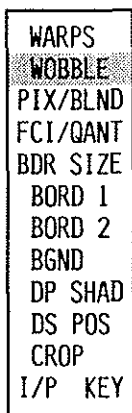
Press



Use



to select



Press



Adjust

WOBBLE F ● S₁

WOBBLE A ● S₂

W PHASE ● S₃

4

WOBBLE OFF/ON

4.137 WOBBLE OFF/ON

From the **EFFECTS** menu:

Press



4.138 Y A.G.C. OFF/ONFrom the **EFFECTS** menu:

Press



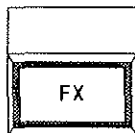
Press



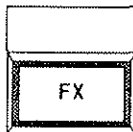
4

4.139 Y/C DUBFrom the **EFFECTS** menu:

Press



Press

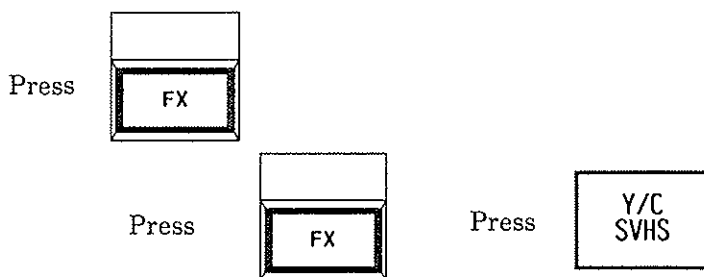


Press



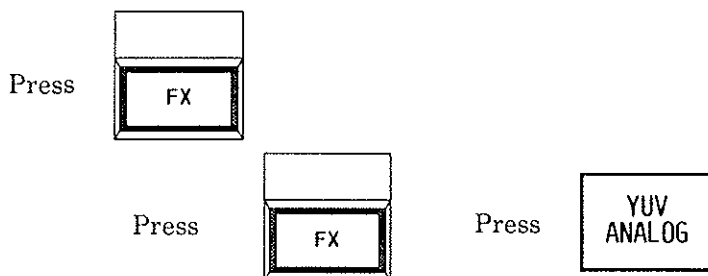
4.140 Y/C S-VHS

From the **EFFECTS** menu:



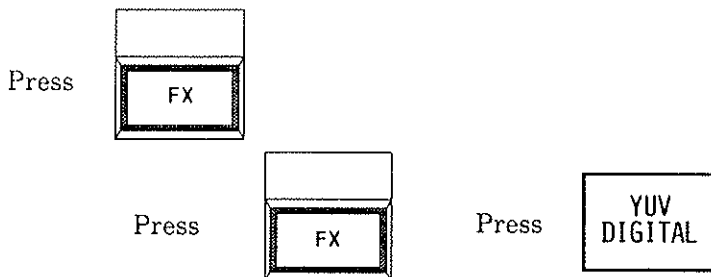
4.141 YUV ANALOG

From the **EFFECTS** menu:



4.142 YUV DIGITAL

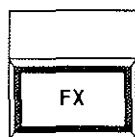
From the **EFFECTS** menu:



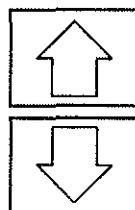
4.143 ZOOM

From the **EFFECTS** menu:

Press



Use



to select

GRAB TIM
SHOTTIME
SEQ TIME
SEQ POSN
FADE O/P
MIXER
VSIZE
HSIZE
HCIRC
HCREASE
HSKEW
HPERSP
ZOOM

4

Select

ASSIGN
SPIN

or

ASSIGN
T1

or

ASSIGN
T2

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DISK UTILITY **PAGE**

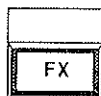
5.9 FORMATTING DISKS	5-19
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5.1 FOLD

Ensure that the system is correctly connected and is powered.
Check that the **EFFECTS** menu is displayed on the touch-screen; if not

press:



Run the video source for channel 1 and verify the monitor displays a picture.

Note...

For two channel systems ensure that the CHANNEL 1/2 button (at the top of the **EFFECTS** menu page) shows channel 1.

Press:



Select the desired direction for the fold and press the DIRECTION ARROW button, for example:

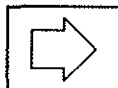


The picture folds to the top edge of the screen.

Note...

The DIRECTION ARROW buttons change to show an inward direction.

Then press:



The picture unfolds diagonally from the top left hand corner of the screen.

FOLD, SLIDE AND ZOOM

5.2 SLIDE

Ensure that the system is correctly connected and is powered.
Check that the **EFFECTS** menu is displayed on the touch-screen; if not

press:

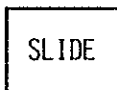


Run the video source for channel 1 and verify the monitor displays a picture.

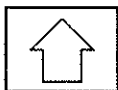
Note...

For two channel systems ensure that the CHANNEL 1/2 button (at the top of the **EFFECTS** menu page) shows channel 1.

Press:



Select the desired direction for the slide and press the **DIRECTION ARROW** button, for example:



The picture slides up and off the top of the screen.

Note...

The **DIRECTION ARROW** buttons change to show an inward direction.

Then press:



The picture slides back into view from the bottom of the screen.

5.3 ZOOM

Ensure that the system is correctly connected and is powered.
Check that the **EFFECTS** menu is displayed on the touch-screen; if not

press:



Run the video source for channel 1 and verify the monitor displays a picture.

Note...

For two channel systems ensure that the CHANNEL 1/2 button (at the top of the **EFFECTS** menu page) shows channel 1.

If the ZOOM button is not highlighted, press it.

Select the desired direction for the zoom and press the DIRECTION button, for example:



The picture zooms down to zero size centre screen.

Note...

The DIRECTION ARROW buttons change to show an inward direction.

Then press:



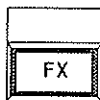
The picture zooms back into view from the bottom centre of the screen.

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5.4 BORDERS

Ensure that the system is correctly connected and is powered.
Check that the **EFFECTS** menu is displayed on the touch-screen; if not

press:

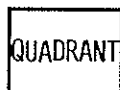


Run the video source for channel 1 and verify the monitor displays a picture.

Note...

For two channel systems ensure that the CHANNEL 1/2 button (at the top of the **EFFECTS** menu page) shows channel 1.

Press:

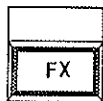


followed by

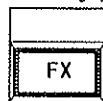


to reduce the picture size such that the borders can be easily seen.

Enter the **INPUT AND BORDERS** menu by pressing:



followed by



Then press:



The system presets and T-bars are temporarily reassigned to adjust the border parameters.

BORDERS

Adjust T-bar T_1 and set the outer border to the desired size.

Note...

For values 0 to 34 the border size remains constant when zooming.

For values 35 to 100 the border size is proportional to the vertical height of the picture when zooming.

T-bar T_2 adjusts the size of the inner border (border 2).



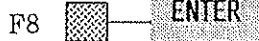
Now use the system presets S_1 , S_2 and S_3 to set the border luminance level, border colour and saturation.

LUM ● S_1

HUE ● S_2

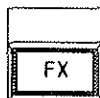
SAT ● S_3

Store the border parameters and return the presets to their previous setting (if any) by pressing:



5.5 BACKGROUND

Ensure that the system is correctly connected and is powered.
Check that the **EFFECTS** menu is displayed on the touch-screen; if not
press:

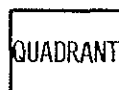


Run the video source for channel 1 and verify the monitor displays a picture.

Note...

For two channel systems ensure that the CHANNEL 1/2 button (at the top of the **EFFECTS** menu page) shows channel 1.

Press:

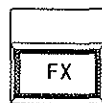


followed by

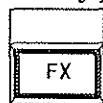


to reduce the picture size such that the background can be easily seen.

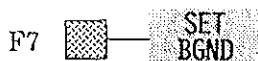
Enter the **INPUT AND BORDERS** menu by pressing:



followed by



Then press:



The system presets are temporarily reassigned to adjust the background parameters.

BACKGROUND

Now use the system presets S_1 , S_2 and S_3 to set the background luminance level, border colour saturation.

LUM ● S_1

HUE ● S_2

SAT ● S_3

Store the background parameters and return the presets to their previous setting (if any) by pressing:

F8  — 

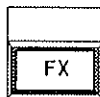
Note...

In systems with a built-in mixer the channel 1 key control must be set to FULL in the B.I.M. menu otherwise the background will not be seen.

5.6 DROPSHADOW

Ensure that the system is correctly connected and is powered.
Check that the **EFFECTS** menu is displayed on the touch-screen; if not

press:

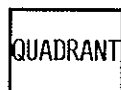


Run the video source for channel 1 and verify the monitor displays a picture.

Note...

For two channel systems ensure that the CHANNEL 1/2 button (at the top of the **EFFECTS** menu page) shows channel 1.

Press:

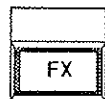


followed by

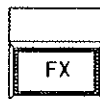


to reduce the picture size such that the dropshadow can be easily seen.

Enter the **INPUT AND BORDERS** menu by pressing:



followed by



Then press:

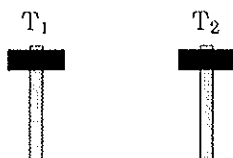


The system presets are temporarily reassigned to adjust the dropshadow parameters.

DROPSHADOW

Adjust T-bar T_1 and set the horizontal position of the dropshadow.

Adjust T-bar T_2 and set the dropshadow vertical position below the picture.



Note...

When adjusting the vertical position of the dropshadow values 0 to 13 give a basic shadow effect and values 14 and 15 fill in the diagonals between the picture and the shadow.

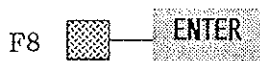
Now use the system presets S_1 , S_2 and S_3 to set the dropshadow luminance, border colour and saturation levels:

LUM ● S_1

HUE ● S_2

SAT ● S_3

Store the dropshadow parameters and return the presets to their previous setting (if any) by pressing:



5.7 MIXER LAYER CONTROL

5.7.1 TWO EFFECTS PLUS VIDEO

Ensure that the system is correctly connected and powered.
To achieve two channels of effects 'flying' over the third, background signal, enter the **MIXER** menu by pressing:



Set the mixer priority controls as follows:

Layer 1 = channel 1.

Layer 2 = channel 2.

Layer 3 = channel 3.

If there is no channel 3 signal, and layer 3 is faded up, the two effects channels would appear over black. If layer 3 is faded down they appear over the background video.

5.7.2 TWO EFFECTS PLUS CHARACTER GENERATOR

Ensure that the system is correctly connected and powered.
To achieve two effects channels, with captions at the front, over a background video, enter the **MIXER** menu by pressing:



Layer 1 = channel 3.

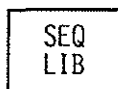
Layer 2 = channel 1.

Layer 3 = channel 2.

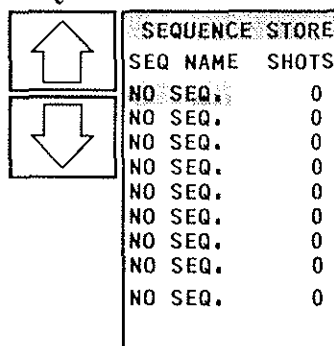
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5.8 SEQUENCE PROGRAMMING

Ensure that the system is correctly connected and powered.
Enter the **SEQUENCE LIBRARY** menu by pressing:



To begin creating a sequence ensure there is a blank sequence number (indicated by NO SEQ.) in the **SEQUENCE STORE** column of the **SEQUENCE LIBRARY** menu:



5

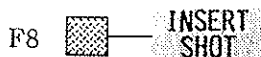
If there are no spaces, make one using:



Enter the **SEQUENCE EDIT** menu by pressing:



Set up the video input, levels, border and background colours, etc. that are required and move the picture ready for the first shot (or key-frame) and press:



SEQUENCE PROGRAMMING

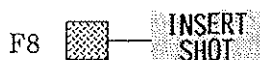
Note the display of the current sequence parameters:

SEQUENCE NO	1
TOTAL SHOTS	1
CURRENT SHOT	20
TOTAL TIME	20

Move the picture to its new position, size etc.

Set the time that is required to take the picture to the new position.

Set the move parameters, i.e. MOVE LINEAR etc., FLIPS or TUMBLES, then press:



Note the display of the current sequence parameters:

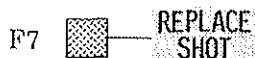
SEQUENCE NO	1
TOTAL SHOTS	2
CURRENT SHOT	20
TOTAL TIME	40

Continue with each shot, in turn, to build up the desired sequence.

To view a sequence during its creation, press:



Any shot can be modified by changing the picture or parameters to what is required and pressing:



Note...

Any changes of settings (such as video input or borders etc.) made in the middle of a sequence, will stay set for the rest of the sequence. Thus, to make a complete sequence run with a different input, go to shot 1, reselect the input (in the **INPUT AND BORDERS** menu) and press:



After a sequence has been created a button with the sequence number appears in the **EFFECTS** menu to enable the sequence to be run with other effects.

The sequence can be saved onto disk with a name of up to eight characters.

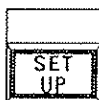
Once saved the sequence name appears on the **EFFECTS** menu button.

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5.9 FORMATTING DISKS

Ensure that the system is correctly connected and is powered.
Check that the **DISK UTILITY** menu is displayed on the touch-screen, if not

press:



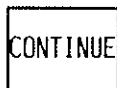
followed by



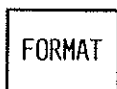
followed by



and confirm the selection by pressing:



Insert the disk into the drive and press:



followed by:



5

The disk drive starts and formatting messages appear on the touch-screen.

When formatting has finished the message **FORMAT COMPLETE** appears on the touch-screen.

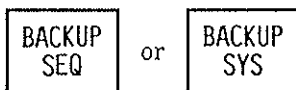
DISK UTILITY

5.10 COPYING DISKS

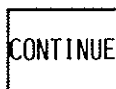
Format a blank disk then remove it.

Engage the write protection tab on the original disk
(source disk) and insert it into the disk drive.

If necessary deselect either:



Then press:



The disk drive starts and reads the current disk (source disk).
When the system memory is full the message **INSERT
DESTINATION DISK AND PRESS CONTINUE** appears.

Insert the destination disk and press:



If copying a full disk several read/write operations will be required.

Follow the system prompts until all files have been copied.

Caution...

Do not remove a disk from the disk drive while it is being written to; this is likely to corrupt the disk directory and make it unreadable.

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SECTION 6

SYSTEM CONFIGURATIONS

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MS852B SYSTEMS **PAGE**

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6.6 SYSTEM CONFIGURATION	6-9

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6.1 GENERAL

Unpack the equipment, interconnecting cables and mains leads.

Check that the voltage rating on the equipment serial number plate corresponds to the local mains supply:

115V units are suitable for supplies of 100V to 130V,
@ 40Hz to 100Hz.

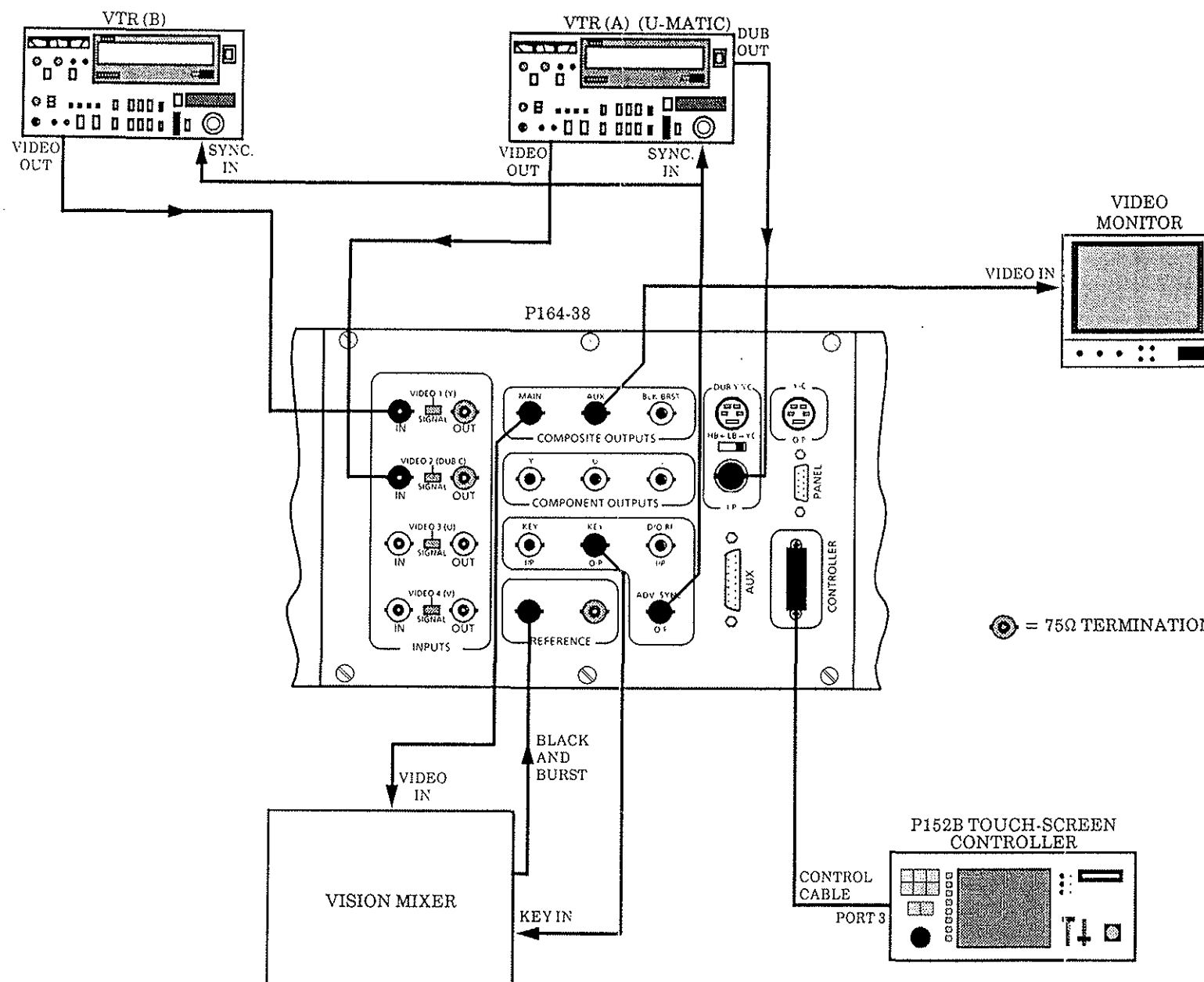
230V units are suitable for supplies of 200V to 260V,
@ 40Hz to 100Hz.

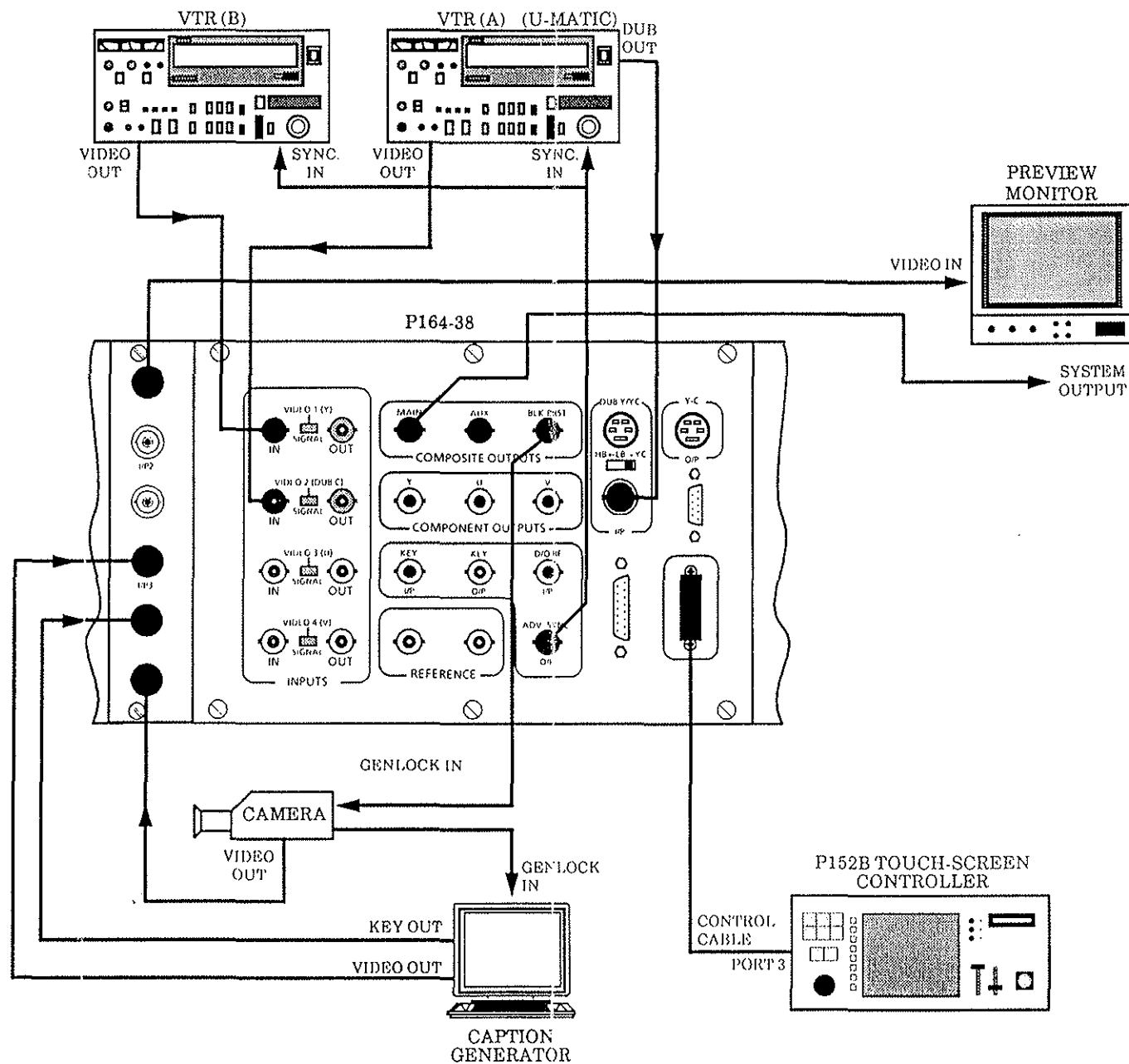
6.2 SYSTEM CONFIGURATION


Connect the equipment as required. A suggested configuration is shown overleaf.

6

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 = 75Ω TERMINATION

6.3 GENERAL

Unpack the equipment, interconnecting cables and mains leads.

Check that the voltage rating on the equipment serial number plate corresponds to the local mains supply:

115V units are suitable for supplies of 100V to 130V,
@ 40Hz to 100Hz.

230V units are suitable for supplies of 200V to 260V,
@ 40Hz to 100Hz.

6.4 SYSTEM CONFIGURATION

Connect the equipment as required. A suggested configuration is shown opposite.

6

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6.5 GENERAL

Unpack the equipment, interconnecting cables and mains leads.

Check that the voltage rating on the equipment serial number plate corresponds to the local mains supply:

115V units are suitable for supplies of 100V to 130V,
@ 40Hz to 100Hz.

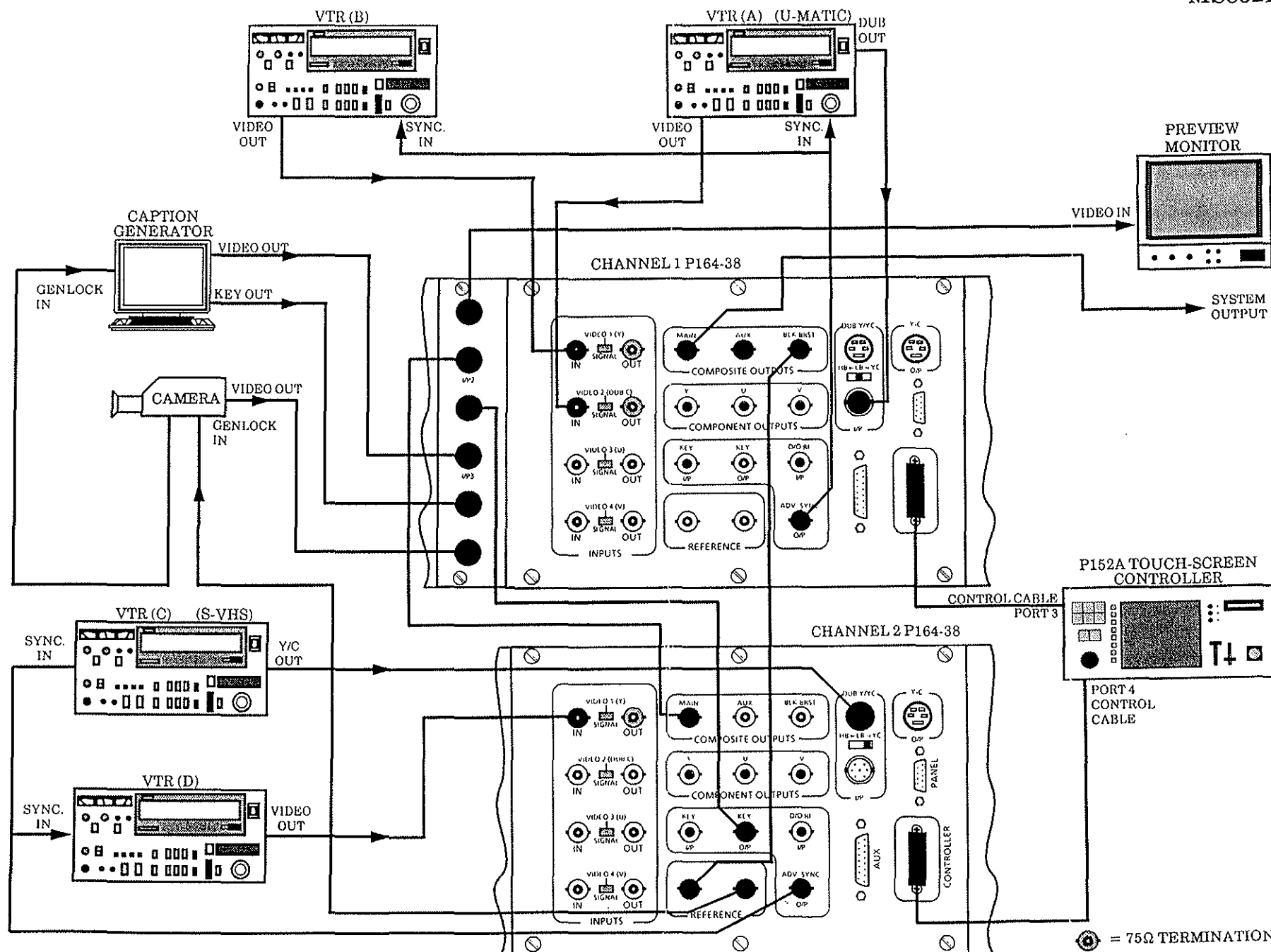
230V units are suitable for supplies of 200V to 260V,
@ 40Hz to 100Hz.

6.6 SYSTEM CONFIGURATION

Connect the equipment as required. A suggested configuration is shown overleaf.

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